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ABSTRACT

A study was done to assess implementation of the Chapter 1 program improvement provisions of the Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988. Chapter 1 is the largest federal education program for educationally deprived school children, and the Hawkins-Stafford Act was designed to ensure that individual schools are effective in helping students achieve Chapter 1 goals. Specifically, the study reviewed the process used to identify schools in need of program improvement and determine whether this process could be improved and to compare implementation of the joint and local phases of program improvement. The study used multiple methodologies including statistical analysis, mail surveys, case studies, and a literature review. The results show that the process used to identify schools for program improvements is flawed because schools often are evaluated only on whether their Chapter 1 students show annual increases in achievement test scores. When schools are evaluated only on achievement test scores, many schools are likely to be judged on changes in test scores that reflect random fluctuations rather than actual changes in student performance. Chapter 1 policy does not adequately explain how evidence from multiple indicators of student performance may be interpreted. In addition, pressure to increase test scores may have negative effects on instruction. Includes 5 tables; 19 figures; 45 references; and extensive appendixes containing officials' views, technical and methodological information, survey results, U.S. Department of Education comments, and a list of major contributors to the report. (JB)

United States General Accounting Office

GAO

Report to the Chairman, Subcommittee on Elementary, Secondary, and Vocational Education, Committee on Education and Labor, House of Representatives

March 1993

CHAPTER 1 ACCOUNTABILITY

Greater Focus on Program Goals Needed

ED359304

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Human Resources Division

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March 29, 1993

The Honorable Dale E. Kildee
Chairman, Subcommittee on Elementary,
Secondary, and Vocational Education
Committee on Education and Labor
House of Representatives

Dear Mr. Chairman:

In response to your request, this report presents the results of our review of implementation of the Chapter 1 program improvement provisions.

Copies of this report are also being sent to appropriate House and Senate Committees, the Secretary of Education, and other interested parties.

This report was prepared under the direction of Linda G. Morra, Director, Education and Employment Issues, who may be reached on 512-7014 if you or your staff have any questions about it. Other major contributors are listed in appendix XII.

Sincerely yours,

Lawrence H. Thompson

Lawrence H. Thompson
Assistant Comptroller General

Executive Summary

Purpose

Chapter 1 is the largest federal education program for children in elementary and secondary schools. With $6.1 billion in federal funds in fiscal year 1992, Chapter 1 serves over 5 million children, through supplemental instruction in reading, math, or language arts, in about 51,000 schools. The statutory goals of Chapter 1 are to help educationally deprived children[1] (1) succeed in the regular program of the school district, (2) attain grade-level proficiency, and (3) improve their achievement in basic and more advanced skills. To ensure that individual schools are effective in helping Chapter 1 students achieve these goals, the Congress created a new accountability system, focused on student outcomes. This accountability system was established by the program improvement provisions of the Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988 (P.L. 100-297). These provisions reflect a national movement toward holding schools accountable for student outcomes.

The program improvement provisions require local education agencies (hereafter "school districts") to identify schools with ineffective Chapter 1 programs and work with these schools to develop and implement local program improvement plans. If a school's Chapter 1 program does not show sufficient improvement under the local plan, the state education agency must become involved, working with local officials to develop and implement a joint improvement plan for the school. The Congress intended program improvement plans to incorporate program changes most likely to improve student performance.

Local and state education officials and recent studies have raised questions about the accuracy of the process used to identify schools for program improvement. Recent studies have also raised concerns about schools' local program improvement efforts, although no studies have focused on state and local efforts in the joint phase.

In anticipation of the 1993 reauthorization of Chapter 1, the Chairman, Subcommittee on Elementary, Secondary, and Vocational Education, House Committee on Education and Labor, asked GAO to (1) assess the process used to identify schools in need of program improvement and determine whether this process could be improved and (2) compare implementation of the joint and local phases of program improvement, including the roles of school, district, and state staff, as well as the program changes (or strategies) schools used to bring about improvement.

[1]The Department of Education defines educationally deprived children as children whose educational attainment is below the level that is appropriate for their age.

Background

A school must be identified for program improvement if its Chapter 1 students fail to make substantial progress toward meeting specific "desired outcomes," which represent the school district's educational goals for Chapter 1 children. At a minimum, districts must establish desired outcomes concerning average student gains in basic and advanced skills, as measured by achievement tests.[2] States must specify, in their state program improvement plans, the minimum standard for average test score gains from one year to the next. Under the federal minimum standard, which states may exceed, schools are identified if students' average test scores stay the same or decrease.

To provide a more complete picture of program effectiveness, however, the Department of Education encourages districts to establish additional desired outcomes, measured by other indicators of student performance. Districts could, for example, establish a desired outcome concerning Chapter 1 students' mastery of certain skills, measured by their performance on criterion-referenced tests,[3] or a desired outcome concerning success in the regular program, measured by the length of time students remain in Chapter 1.

The joint phase of program improvement focuses state attention on schools whose Chapter 1 programs did not improve sufficiently during the local improvement phase. During the joint phase, in contrast to the local phase, state agencies must become directly involved with local officials in developing and implementing program improvement plans for identified schools. About 1,400 schools (about 3 percent of all Chapter 1 schools) entered the joint phase in school year 1991-92, the first year large numbers of schools entered this phase of program improvement.

To assess the process for identifying schools with ineffective Chapter 1 programs, GAO analyzed a data set containing achievement-test scores for Chapter 1 students in one large state and reviewed research literature on the effects of achievement testing on classroom instruction. To obtain information about implementation of the joint phase of program improvement in comparison with the local phase, GAO (1) surveyed the Chapter 1 coordinators of all 50 states and the District of Columbia, as well as officials in nearly every district and school involved in the joint

[2]When we refer to "achievement tests," we mean standardized, norm-referenced, multiple-choice achievement tests such as the Metropolitan Achievement Test, Comprehensive Test of Basic Skills, or Iowa Test of Basic Skills.

[3]Criterion-referenced tests, often developed by state education agencies or school districts, measure student mastery of state or locally defined educational objectives.

phase during school year 1991-92, and (2) conducted case studies in four states, interviewing state, district, and school officials about their experiences with both phases of program improvement.

Results in Brief

The process used to identify schools for program improvement is flawed because schools often are evaluated only on whether their Chapter 1 students show annual increases in achievement-test scores. GAO's analysis shows that when schools are evaluated only on achievement test scores, many schools are likely to be judged as effective or ineffective on the basis of changes in test scores that reflect random fluctuations, rather than actual changes in student performance. Achievement-test scores alone cannot provide a complete picture of program effectiveness. However, the statute, regulations, and Chapter 1 Policy Manual do not adequately explain how evidence from multiple indicators of student performance may be considered when identifying schools for program improvement.

In addition, identifying schools on annual changes in achievement-test scores may neglect the improvement needs of schools with students that make annual gains on test scores, but remain far below grade level. Thus, the current identification process may not hold schools accountable for the Chapter 1 goal of helping students attain grade-level proficiency. Finally, when increasing achievement-test scores is seen as the most important objective for Chapter 1, schools may try to raise students' test scores without improving instructional practices, using less desirable strategies that narrow the scope of instruction to focus on material covered by the tests. These efforts may be inconsistent with the Chapter 1 goal of helping children succeed in the regular program of the district.

Holding schools accountable for achieving multiple desired outcomes and assessing program effectiveness with multiple indicators of student performance would improve the identification process. This would also help reduce the emphasis schools place on achievement-test scores in providing instruction to their Chapter 1 students.

School staffs were considered more influential than district and state staff in developing improvement plans in both the local and joint phases of program improvement. In both phases, state assistance was typically more general than specific—focusing more on explaining the requirements of program improvement than on helping individual schools develop improvement plans—although specific state assistance did increase in the

joint phase. The amount of specific assistance schools received was related to the number of state staff available to work with them.

Schools continued to use most of the same improvement strategies in the joint phase of program improvement that they used in the local phase. The most widely used strategies in both phases were (1) improving coordination between Chapter 1 and the regular instructional program and (2) increasing parental involvement. In addition, large-city schools were more likely than schools in other locations to adopt the strategies of adding a summer program or adding an extended-day program for Chapter 1.

Principal Findings

Program Effectiveness Often Judged Only on Achievement-Test Scores

States and school districts often identify schools for program improvement solely or unconditionally on the basis of students' achievement-test scores. Many school districts have only established desired outcomes for their Chapter 1 programs concerning students' average gains on achievement tests, thus judging program effectiveness with a single indicator of student performance. A majority of school districts have established additional desired outcomes for their Chapter 1 program, but most of these districts still use test scores as an unconditional criterion when identifying schools: If a school's students do not show sufficient gains on achievement tests, the school is identified for program improvement, regardless of student success on other desired outcomes. (See pp. 23-24.)

However, the law suggests that the identification process can be more flexible. If a school's Chapter 1 students do not make sufficient gains on achievement tests, a school, it can be argued, need not be identified for program improvement—so long as evidence from other indicators shows that the Chapter 1 program is effective. The practice of using gains on achievement tests as an unconditional criterion in identifying schools may stem from the language of the statute and a lack of guidance in the Department's regulations and Chapter 1 Policy Manual. (See pp. 24-25.)

Reliance on Achievement Tests Reduces Accuracy of Identification Process

When Chapter 1 program effectiveness is judged only on changes in achievement-test scores, many schools are likely to be identified or not identified for program improvement on the basis of random fluctuations in

test scores, rather than actual changes in student performance. For 25 percent of the schools in GAO's analysis of one state's schools, a confident judgement could not be made about whether their students actually exceeded or fell short of the standard for gains on achievement tests. These results are based on the federal minimum standard for gains; by using a standard that required greater gains, many more schools would have average changes in test scores that could not be distinguished from random fluctuations. (See pp. 25-26.)

Focus on Annual Gains in Test Scores May Neglect Needs of Schools With Lowest Achieving Students

Focusing on annual gains in achievement-test scores may direct the attention of local and state officials away from schools whose students show gains in test scores but nevertheless remain far below grade level. Thus, the current identification process may not hold schools accountable for the Chapter 1 goal of helping students attain grade-level proficiency. GAO found that schools whose students initially had the lowest average achievement-test scores were less likely to be identified for program improvement than schools whose students initially had the highest average test scores. For example, under the federal minimum standard for test score gains, about 10 percent of schools with the lowest initial average test scores would be identified as needing improvement, compared with about 14 percent of schools with the highest initial average test scores. Using a higher standard for test score gains, the difference in the percentage of schools identified in these two groups increases from 4 percent to 13 percent. (See pp. 28-29.)

Pressure to Increase Test Scores May Have Negative Effect on Chapter 1 Instruction

Pressure to increase achievement-test scores may have a negative effect on the instruction Chapter 1 students receive. Research evidence indicates that when such pressure exists, subject areas covered on achievement tests tend to be taught to the exclusion of untested subject areas, and instruction tends to be oriented toward promoting students' ability to recognize correct answers to multiple-choice questions rather than promoting higher order thinking skills. In its case studies, GAO found that some schools identified for the joint phase of program improvement simply re-targeted existing instructional practices on the subject areas in which test scores were too low, rather than scrutinizing their instructional program and adopting new approaches. Focusing instruction on increasing students' achievement-test scores may not help Chapter 1 students succeed in the regular instructional program of the school district—a statutory goal of Chapter 1. The Department of Education cautions, in its Chapter 1 Policy Manual, that gains on achievement tests may not

translate into improved performance in regular classrooms. (See pp. 29-30.)

School Staffs Had Most Influence on Improvement Efforts During Both Phases

GAO's survey of district Chapter 1 coordinators found that in both the joint and local phases, school staffs had more influence than districts and states in determining schools' improvement needs and selecting improvement strategies. State staffs were the least influential among these three groups. Almost 80 percent of district coordinators rated school staffs as having a "very great" or "great" influence, during the joint phase, in determining improvement needs and selecting strategies. About 70 percent of the coordinators felt their own staff had this degree of influence, and about 40 percent said state staffs did. Coordinators in districts that received greater amounts of state assistance rated state influence higher than coordinators in districts that received less assistance. (See pp. 34-36.)

Improvement Strategies for Joint Phase Similar to Local Phase

Most schools in the joint phase continued to use the improvement strategies they began using in the local phase. About two-thirds of principals reported that the improvement strategies their schools were using in the joint phase were "exactly the same" or "very similar" to those adopted in the local phase. The two most common strategies in both phases were (1) improving coordination between Chapter 1 and the regular instructional program and (2) increasing parental involvement. During both phases, each of these strategies was used in about 90 percent of the schools. In addition, over 75 percent of the principals GAO surveyed said that instructing students on test-taking skills was one of their strategies during each phase. Large-city schools adopted some strategies much more often than schools in other locations during both phases. In the joint phase, about 62 percent of large-city schools offered summer programs for Chapter 1 (compared with about 22 percent of all other schools) and about 53 percent provided Chapter 1 services through extended-day programs (compared with about 19 percent of all other schools). (See pp. 37-43.)

State Assistance Increased During the Joint Phase

State education agencies provided more technical assistance to districts and schools in the joint phase than in the local phase. But in both phases, state agencies provided greater amounts of general assistance, such as explaining requirements, than specific assistance, such as improving individual schools. Specific state assistance, however, increased in the joint phase. About 31 percent of principals reported a "very great" or

"great" amount of specific state assistance in the joint phase, up from 23 percent in the local phase. Among district coordinators, the percentage reporting this amount of specific assistance increased from 30 percent in the local phase to 46 percent in the joint phase. In both phases, however, some schools and districts reported receiving little state assistance. In the joint phase, for example, about 20 percent of district coordinators and 37 percent of principals reported a "very small" amount or "no" specific assistance from their states. Principals were most likely to report a "very small" amount or "no" specific state assistance if they were from states in which small numbers of state staff were responsible for assisting large numbers of joint-phase schools. (See pp. 43-48.)

Because this study examined the first school year in which large numbers of schools entered the joint phase, GAO's findings may not reflect how the joint phase will be implemented in subsequent years. For example, as district and school officials become more familiar with the requirements of the joint phase, state officials may be able to spend less time providing general information and more time assisting individual schools with their improvement efforts.

Recommendations to the Congress

To improve the process used to identify schools for program improvement and to help reduce the emphasis placed on standardized achievement-test results, GAO recommends that the Congress amend the Elementary and Secondary Education Act to require (1) states to establish, for schools' Chapter 1 programs, multiple desired outcomes related to the statutory goals of Chapter 1 and (2) districts to assess program effectiveness by considering whether evidence from multiple indicators of student performance shows substantial progress in achieving these outcomes.

The Congress should require state education agencies to specify, in their state program improvement plans, (1) the desired outcomes for Chapter 1 schools, (2) the indicators that will be used to measure student progress toward those desired outcomes, (3) minimum standards for student performance on each indicator, and (4) a definition of substantial progress toward meeting the desired outcomes as a group (that is, how districts will weigh evidence from multiple indicators in judging whether their Chapter 1 schools are effective). Districts should also be allowed to set higher standards than required by their state education agency and to use, with the approval of their state agency, additional or alternative desired outcomes and indicators.

GAO also recommends clarifications to statutory language on the process used to identify schools for program improvement (see p. 32).

Matter for Congressional Consideration

To help ensure that states establish adequate standards for identifying Chapter 1 schools in need of improvement, the Congress should consider amending the Elementary and Secondary Education Act to require that the Secretary of Education review and approve the desired outcomes and indicators specified by states in their state program improvement plans. This review could focus on determining whether states have specified (1) desired outcomes and indicators that reflect high educational standards and pertain to the statutory goals of Chapter 1 and (2) a reasonable definition of substantial progress toward meeting multiple desired outcomes.

Agency Comments

The Department of Education agreed with GAO's conclusions, but cautioned that multiple indicators (1) can sometimes provide conflicting evidence about program effectiveness and (2) need to be valid and reliable measures (see app. VIII). GAO believes that the recommendations and matter for congressional consideration in this report address these concerns. Situations involving conflicting evidence should be resolved according to state plans, which will specify how evidence from all indicators will be considered together in evaluating Chapter 1 program effectiveness. In addition, if the Congress requires the Department to review and approve each state's program improvement plan, the Department could play a key role in ensuring that proposed indicators are sufficiently valid and reliable.

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Abbreviations

FTE	full-time equivalent
NCE	normal curve equivalent
R-TAC	rural technical assistance center
TAC	technical assistance center

Introduction

Chapter 1 is the largest federal program for elementary and secondary education, with a fiscal year 1992 budget of $6.1 billion. These funds support supplemental instruction in reading, math, or language arts for over 5 million children in about 51,000 schools, including about 70 percent of the nation's elementary schools. The statutory goals of Chapter 1 are to help educationally deprived children[1] (1) succeed in the regular program of the school district, (2) attain grade-level proficiency, and (3) improve their achievement in basic and more advanced skills.

During the 1988 reauthorization of Chapter 1, the Congress created a new accountability system, focused on student outcomes, to ensure that individual schools are effective in helping students achieve the goals of Chapter 1. This accountability system is outlined in the program improvement provisions of the Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988 (P.L. 100-297).[2] Under these provisions, local education officials are required to identify schools with ineffective Chapter 1 programs and then develop and implement plans to improve those programs. If these local efforts do not result in sufficient improvement, state officials must become involved with local officials in the program improvement process.

Some local and state education officials, as well as other experts, have questioned the accuracy of the process used to identify schools for program improvement.[3] They are concerned that some of the schools most in need of improvement may not be identified and that some schools are identified even though their Chapter 1 programs are effective. In addition, recent studies of program improvement have raised concerns about the program improvement efforts undertaken by identified schools.[4] These studies have focused mainly on the local phase of program improvement; none have specifically examined joint state-local efforts.

[1]The Department of Education defines educationally deprived children as children whose educational attainment is below the level that is appropriate for their age.

[2]The law previously required that districts use evaluation results to improve their Chapter 1 programs; however, until the Hawkins-Stafford Amendments, no system existed to hold schools accountable for doing so.

[3]For views about the accuracy of the identification process among the officials we surveyed, see appendix I.

[4]National Assessment of the Chapter 1 Program: The Interim Report, U.S. Department of Education (Washington, D.C.: June 1992); Mary Ann Millsap and others, The Chapter 1 Implementation Study: Interim Report (Cambridge, Mass.: Abt Associates, Inc., under contract with the U.S. Department of Education, Office of Policy and Planing, 1992).

Evaluating Chapter 1 Program Effectiveness

The program improvement provisions require local education agencies (hereafter "school districts") to determine annually whether their schools' Chapter 1 programs have been effective in improving the performance of participating students. The statute indicates that a school shall be identified for program improvement if its Chapter 1 students (1) show no improvement or a decline in "aggregate performance" or (2) fail to make substantial progress toward meeting the school's "desired outcomes." Aggregate performance refers to the average change in students' scores on achievement tests from one year to the next;[5] desired outcomes are the educational goals, in terms of basic and more advanced skills, that school districts set for participating children. Chapter 1 regulations, however, permit districts to use average gains on achievement tests (in basic and advanced skills) as the only desired outcomes for their schools' Chapter 1 students.

The Department of Education encourages districts to establish additional desired outcomes, measured by other indicators of student performance, because this will provide a more complete picture of program effectiveness.[6] Districts could, for example, establish a desired outcome concerning Chapter 1 students' mastery of certain skills, measured by students' performance on criterion-referenced tests,[7] or a desired outcome concerning success in the regular program, measured by the length of time students remain in Chapter 1.

Annual Achievement Testing in Chapter 1 Schools

By judging the effectiveness of individual schools' Chapter 1 programs on the basis of students' achievement-test scores, the program improvement provisions significantly raised the stakes associated with achievement tests in Chapter 1 schools. Previously, schools were not held accountable for increasing students' scores on achievement tests; now, however, schools are identified as ineffective if their students do not show sufficient achievement gains from one year to the next.

Once a year, all of a school's Chapter 1 students in grades 2 to 12 must take an achievement test to measure performance in the subject areas in

[5]When we refer to "achievement tests," we mean standardized, norm-referenced, multiple-choice achievement tests such as the Metropolitan Achievement Test, Comprehensive Test of Basic Skills, or Iowa Test of Basic Skills.

[6]Chapter 1 Policy Manual: Basic Programs Operated by Local Educational Agencies, U.S. Department of Education, Office of Elementary and Secondary Education, Compensatory Education Programs (Washington, D.C.: Apr. 1990), pp. 120-21 and 156.

[7]Criterion-referenced tests, often developed by state education agencies or school districts, measure student mastery of state or locally defined educational objectives.

which these students receive supplemental instruction. Each student's score is reported in terms of normal curve equivalents (NCEs), a special scale used for achievement testing in Chapter 1.[8] Under the program improvement provisions, schools are evaluated on the average change in their Chapter 1 students' NCE scores over a 1-year period. To meet this requirement, an "NCE change score" is calculated for each Chapter 1 school, using only the scores of students who took an achievement test in 2 successive years (referred to as "matched test scores").[9] For example, if a school's average NCE score is 32 NCEs one year and 34 NCEs the next year, then its NCE change score is 2 NCEs. When a school's NCE change score is positive, the Chapter 1 students are said to have made gains in achievement; when it is negative, the students are said to have shown losses in achievement; and when it is 0, the students are said to have maintained the same achievement level.

The law requires state education agencies to specify, in their state program improvement plans, the standard their districts will use in evaluating whether a school's Chapter 1 students have made sufficient achievement gains. The federal minimum standard, established by regulation, requires that to make sufficient NCE gains, a school's NCE change score must be greater than 0. We refer to this as the "0 NCE standard." However, states and districts may establish higher NCE standards, such as requiring schools to make gains greater than 2 or 4 NCEs. Most states and districts use a 0 NCE standard, although the number using an NCE standard higher than the federal minimum has increased since the first year the Chapter 1 accountability system took effect.

NCE Change Scores Provide an Imprecise Measure of Student Achievement

NCE change scores are not precise measures of average changes in student performance on achievement tests. Students' actual gains or losses may be somewhat higher or lower than the NCE change score indicates. The precision of this estimate can be affected by a variety of factors, including, for example, the reliability of the achievement test used and the number of students with matched test scores from which a school's NCE change score is calculated.

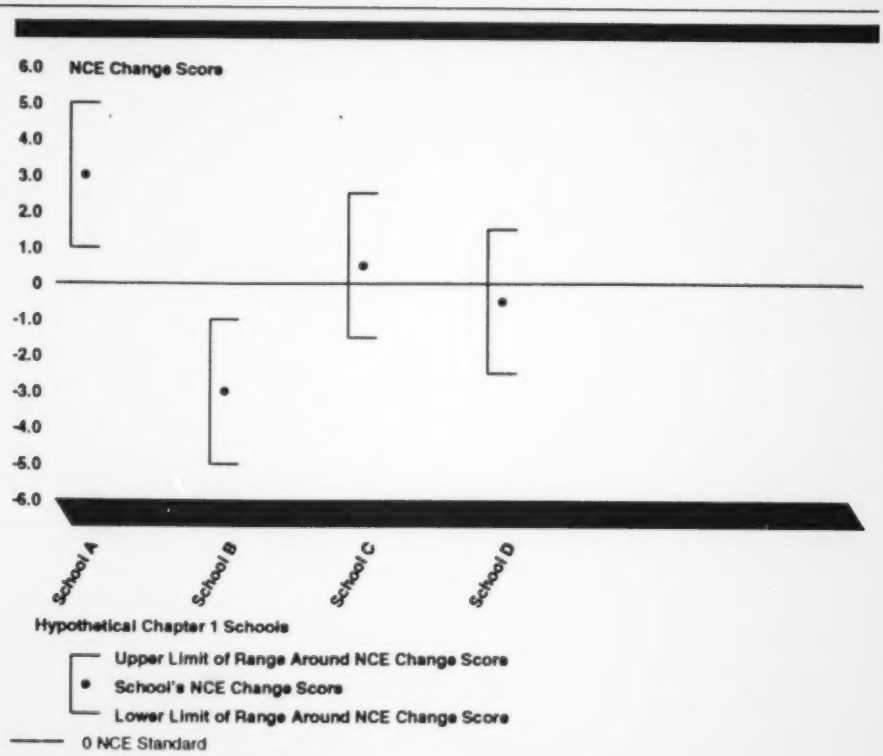
[8]An NCE score, like a percentile rank, shows how well a student performed on an achievement test. Unlike percentiles, however, NCE scores for different students can be averaged. This allows NCEs to be aggregated to provide a national picture of Chapter 1 program effectiveness, which is why NCEs were originally developed.

[9]The use of matched test scores ensures that a school's NCE change score reflects only the performance of students who were in the Chapter 1 program for a full year, not those who attended the school just part of the school year.

The concept of test reliability refers to how similar a student's score would be if he or she took the same test many times. Although the achievement tests in wide use today have a high degree of reliability, no achievement test is perfectly reliable; some amount of random fluctuation in a student's scores would be normal and expected. The number of students contributing to a school's NCE change score can also affect its precision as an indicator of average student achievement. An NCE change score calculated from a small number of matched test scores is more likely to be affected by random fluctuations in students' test scores than one calculated from a large number of matched scores.

By accounting for sources of imprecision, however, it is possible to determine, with a high degree of confidence, the range within which a school's actual NCE change score falls. For example, this range might extend 2 NCEs above and below the school's NCE change score. If this range does not extend across the NCE standard (as with schools A and B in fig. 1.1), there is very little doubt as to whether the school's students exceeded the standard for NCE gains (school A) or fell short of it (school B). However, if this range does extend across the NCE standard (as with schools C and D in fig. 1.1), a confident judgement cannot be made about whether the school's students actually exceeded or fell short of the NCE standard. We say these schools have "inconclusive NCE change scores" because they were not above or below the NCE standard by a statistically significant margin.

Figure 1.1: Some Schools' NCE Change Scores May Not Permit a Confident Judgement About Whether Students Exceeded or Fell Short of the NCE Standard



Developing and Implementing Local and Joint Program Improvement Plans

When a school is initially identified as ineffective, the school district, in coordination with the school, must develop and implement a local plan for program improvement. The regulations allow a maximum of 1 full school year to develop these plans, but require that portions be implemented as soon as possible. In addition, the statute specifies that program improvement plans should incorporate the program changes that have the greatest likelihood of improving student performance. Examples of program changes (hereafter, "improvement strategies") include adopting a new instructional approach or offering Chapter 1 services during the summer.

If a school's Chapter 1 program is again identified as ineffective, after the local plan has been fully implemented for 1 full school year, the state education agency and the district together must develop and implement a joint program improvement plan for the school, in coordination with school staff. If the joint plan is unsuccessful, the state and district must

review and revise the plan each year until Chapter 1 students show improved performance over more than 12 months.

About 5,000 schools entered the local phase of program improvement during school year 1989-90, the first year the new accountability system took effect. In school year 1991-92, about 1,400 schools entered the joint phase; most of these schools had not shown sufficient improvement during 2 years in the local phase.[10] In most states, school year 1991-92 was the first year that schools entered the joint phase.

Objectives, Scope, and Methodology

In anticipation of the 1993 reauthorization of Chapter 1, the Chairman, Subcommittee on Elementary, Secondary, and Vocational Education, House Committee on Education and Labor, asked GAO to conduct a study of the Chapter 1 program improvement process, focusing on the accuracy of the school identification process and implementation of the joint phase.

In response to the request, we agreed to (1) assess the process used to identify schools for program improvement and determine whether it could be improved and (2) compare implementation of the joint and local phases of program improvement, including the roles of school, district, and state staff, as well as the strategies schools used to bring about improvement. To meet these objectives, we used multiple methodologies, including statistical analyses, mail surveys, case studies, and a literature review.

Statistical Analyses

To demonstrate the extent of potential inaccuracy in the process used to identify schools for program improvement, we analyzed a data set containing achievement-test scores for Chapter 1 students in Pennsylvania. We limited our analysis to students' test scores on reading comprehension subtests, which are used to measure advanced reading skills. We also limited our analysis to the 2,115 schools that had more than 10 students with matched test scores.[11]

We first determined the number of schools with NCE change scores that did not permit a confident judgement about whether their students actually exceeded or fell short of a given standard for NCE gains; that is, the number of schools with inconclusive NCE change scores. We also determined the

[10]For information on the number and characteristics of schools and districts involved in the joint phase during school year 1991-92, see appendix II.

[11]Our rationale for these limits on the scope of our statistical analyses, as well as the technical details of these analyses, are presented in appendix III.

extent to which (1) schools with matched test scores for small numbers of Chapter 1 students are more likely to have inconclusive NCE change scores than schools with matched test scores for large numbers of students and (2) schools with initially high average NCE scores are more likely to be identified than schools with initially low average NCE scores.

Mail Surveys

To obtain information about implementation of the joint phase of program improvement in comparison with the local phase, we conducted three mail surveys. First, in December 1991, we surveyed the state Chapter 1 coordinators of all 50 states and the District of Columbia. Our response rate was 100 percent. The questionnaire asked state coordinators about their policies on program improvement and their opinions on the accuracy of the identification process; in addition, the survey asked them to send us mailing lists of every school and district identified for the joint phase of program improvement during school year 1991-92.

We received usable lists from 46 states, identifying a total of 1,397 schools and 498 districts involved in the joint phase. Iowa, North Dakota, and the District of Columbia did not submit any mailing lists because they had no schools in the joint phase during school year 1991-92. Florida did not provide us with a list of its joint-phase schools and districts in time for us to include them in our surveys of principals and district coordinators. Finally, although California submitted a list of schools and districts, we did not include them in our surveys because the state education agency makes no distinction between the local and joint phases of program improvement.[12]

Then, in April 1992, we surveyed (1) the Chapter 1 coordinators of each of the 498 districts and (2) the principals of all 1,397 schools. Our response rates were 96 percent for district coordinators and 86 percent for school principals.[13] Among other things, the questionnaires for these surveys asked about the roles of school, district, and state staff in determining

[12]California has implemented the Chapter 1 program improvement provisions differently from all other states. California considers all program improvement activities to be a joint state-local effort. Furthermore, all California schools identified for program improvement must stay in for 4 school years—1 year to develop a plan, followed by 3 years of implementation. Even if a California school shows success after 1 or 2 years, it must stay in program improvement for the remainder of the 4-year period.

[13]Although we surveyed the vast majority of schools and districts involved in the joint phase, lists provided by states were in some cases incomplete and in other cases may have had some errors. For example, some respondents reported that their districts or schools were not involved in the joint phase; this may indicate some confusion between state and local officials about which schools were actually in the joint phase (see app. II).

program improvement needs and selecting improvement strategies; the strategies schools used in each phase; and the accuracy of the identification process. We also asked the principals how far along their schools were in developing and implementing their joint plans; over 70 percent of the principals indicated they had partially or fully implemented their joint plan. (State, district, and school questionnaires are presented in apps. IV, V, and VI, respectively.)

Case Studies

To obtain more information about implementation of the joint phase in comparison with the local phase, we conducted case studies in four states: Arkansas, Maryland, Michigan, and Mississippi. We chose these states primarily because they each had a large number of schools in the joint phase during school year 1991-92. Within each state, we interviewed the state Chapter 1 coordinator and other state staff knowledgeable about program improvement activities. We also visited one urban school district and one rural district in each state; in both districts, we interviewed the district Chapter 1 coordinators and any key members of their staffs. Within each district we visited one school, where we interviewed the school principal and one or more Chapter 1 instructors.

We visited only elementary schools because most Chapter 1 services in the nation are provided at this level. We also chose schools with a high concentration of poverty because we believe such schools face the greatest challenge in improving the achievement of their Chapter 1 students.[14] Other factors we considered in choosing districts and schools included (1) the length of time the district coordinator and principal had held their current positions (because we wanted to interview officials with first-hand knowledge of activities in both phases of program improvement) and (2) the degree to which joint improvement plans had been implemented (because we wanted to visit places where the joint phase was significantly under way). (The districts and schools we visited in each state are listed in app. VII.)

Literature Review

At the time of our study, several other studies of program improvement had been completed or were under way, some as part of the Department of

[14]We measured poverty concentration as the percentage of students participating in the free or reduced-price lunch program. Children who receive a free lunch come from families with incomes of 130 percent or less of the official poverty threshold, which was $10,860 for a three-person family in 1991; children who receive a reduced-price lunch come from families with incomes of 185 percent or less of the official poverty threshold. (Sources: U.S. Department of Commerce, Bureau of the Census, and U.S. Department of Agriculture, Child Nutrition Division.)

Education's national assessment of the Chapter 1 program. We reviewed the findings from these studies that are related to program improvement and refer to them in this report, when applicable. We also reviewed literature on the effects of standardized testing on school instruction. References for the literature we reviewed appear in the bibliography.

The Department of Education provided written comments on a draft of this report. These comments are presented in appendix VIII. We revised our report, on the basis of these comments, when applicable.

We carried out our study between July 1991 and November 1992 in accordance with generally accepted government auditing standards.

Chapter 1 Accountability System Hindered by Reliance on Achievement Tests

The accountability system established by the Chapter 1 program improvement provisions may not accurately identify schools with ineffective Chapter 1 programs nor encourage schools to make program changes that are most likely to help students achieve the goals of Chapter 1. These problems stem from evaluating schools primarily on students' achievement-test scores. In addition, because schools are judged effective when they show annual gains in test scores, states and districts may neglect the improvement needs of schools whose students make gains but still remain far below grade-level.

The use of additional indicators of student performance would provide a more complete picture of Chapter 1 program effectiveness. This would also reduce the emphasis schools place on achievement tests in selecting improvement strategies. But the statute, regulations, and Chapter 1 policy guidance inadequately explain how evidence from multiple indicators may be considered when identifying schools in need of program improvement.

Chapter 1 Effectiveness Often Judged Only on Achievement-Test Scores

Many states and districts judge the effectiveness of their schools' Chapter 1 programs solely or unconditionally on the basis of students' average achievement-test scores. Many school districts have only established desired outcomes concerning Chapter 1 students' average gains in basic and advanced skills, as measured by their performance on achievement tests. A majority of districts, however, have established additional desired outcomes, for example, concerning Chapter 1 students' mastery of particular skills, as measured by their scores on criterion-referenced tests.[1] When judging whether a school's Chapter 1 program needs improvement, however, few of these districts consider student progress toward these additional desired outcomes together with achievement-test scores. Rather, achievement-test scores are used as an unconditional criterion: If a school's Chapter 1 students do not show sufficient NCE gains, the school is identified as needing program improvement, regardless of students' success in meeting the other desired outcomes.[2]

[1]These additional desired outcomes often pertain to achievement-test results, but districts use some measure other than the average gains among all participating students over a 1-year period. For more information on the desired outcomes (other than NCE gains) used in the districts we surveyed, see appendix IX.

[2]Among the district coordinators we surveyed whose districts required the use of desired outcomes other than average NCE gains, 80 percent indicated that a school that does not show sufficient NCE gains must be identified for program improvement, even if it has other evidence of the effectiveness of its Chapter 1 program.

School districts may use NCE change scores as the sole criterion in evaluating Chapter 1 program effectiveness for a variety of reasons: First, for Chapter 1 students in grades 2 to 12, districts are not required to set any desired outcomes other than annual gains on achievement tests. Second, districts may have little experience in setting outcome-based goals for their Chapter 1 programs and in measuring students' progress toward meeting those goals.[3] A primary reason why many districts use NCE change scores as an unconditional criterion may be the commonly held view that the law requires this. One provision of the statute indicates that a school must be identified for program improvement if its Chapter 1 students either (1) do not make sufficient NCE gains or (2) fail to make substantial progress toward meeting other desired outcomes.[4]

However, another provision in the same section of the law suggests that the identification process can be more flexible, specifically, that a school does not have to be identified if its Chapter 1 students do not make sufficient NCE gains. This provision specifies five "local conditions" that states and districts must take into consideration when identifying schools. One of these local conditions, it can be argued, permits states and districts to disregard achievement-test scores if other evidence demonstrates the positive effects of Chapter 1 on participating students.[5]

Many local and state officials are not using this flexibility, perhaps because it is not explained in the Department of Education's regulations or in its Chapter 1 Policy Manual. Both the Chapter 1 regulations and Policy Manual indicate that a school must be identified if it does not show sufficient NCE gains. The Policy Manual suggests that districts and states exempt schools from program improvement only on the basis of local

[3]See, for example, Millsap and others, The Chapter 1 Implementation Study and Chapter 1 Program Improvement and Innovation Across the States: An Overview and State Profiles, Council of Chief State School Officers (CCSSO), (Washington, D.C.: 1992).

[4]Public Law 100-297 section 1021(b). This wording in the law may be another reason why some states and districts use NCE change scores as the sole criterion in evaluating Chapter 1 program effectiveness. One recent study said that "many localities see the dual set of standards as a form of 'double jeopardy,'" in which additional desired outcomes only increase the chances that a school will be identified. (Source: Chapter 1 Program Improvement and Innovation Across the States: An Overview and State Profiles, CCSSO, p. 5). This study, as well as others, concluded that this section of the statute has reduced the incentive to set additional desired outcomes. See, for example, Sam Stringfield and others, "Chapter 1 Program Improvement: Cause for Cautious Optimism and a Call for Much More Research," Educational Evaluation and Policy Analysis, Vol. 13, No. 4 (Winter 1991), pp. 399-406; Nancy Kober, "The Role and Impact of Chapter 1, ESEA, Evaluation and Assessment Practices," prepared for the U.S. Congress, Office of Technology Assessment, June 1991.

[5]Public Law 100-297 section 1021(e). The local conditions included in this section of the statute are listed in appendix X.

conditions that are unforeseen, such as an unexpected increase in student mobility.

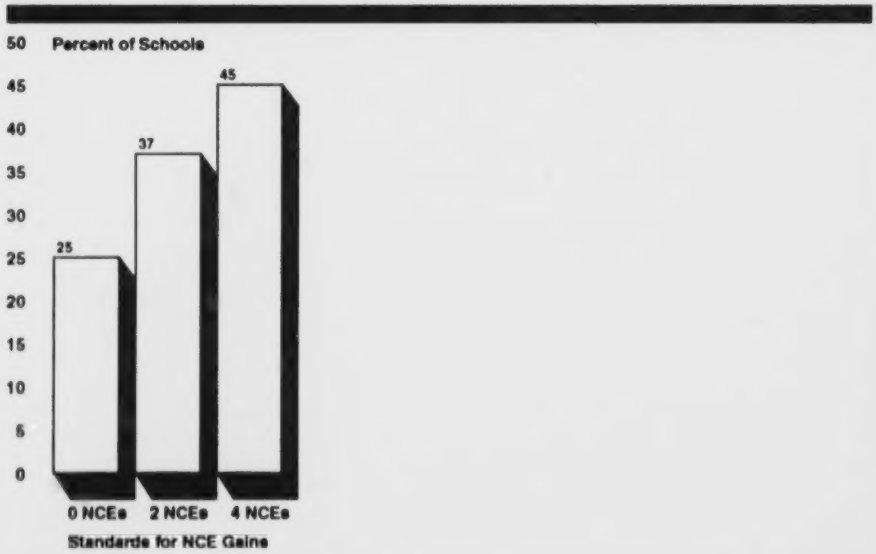
As a matter of policy, Department officials support the local condition permitting districts to disregard achievement-test scores when other evidence indicates that a school's Chapter 1 program is effective. They also believe, however, that some of the other local conditions specified in the statute are not appropriate reasons for exempting schools from program improvement. One local condition, for example, would allow state and local officials to exempt a school if they felt the extent of educational deprivation among its Chapter 1 students had a negative impact on improvement efforts. Department officials believe, and we concur, that this would be contrary to the Chapter 1 aim of serving educationally deprived children. Department officials explained that they find it difficult encouraging state and local officials to consider some local conditions when identifying schools while at the same time discouraging these officials from considering others.

Reliance on Achievement-Test Scores Reduces Accuracy of Identification Process

Sole reliance on achievement-test scores reduces the accuracy of the process used to identify schools for program improvement. States and districts are likely to judge the effectiveness of many schools' Chapter 1 programs on the basis of achievement-test scores that reflect random fluctuations rather than actual changes in student achievement. Using the federal minimum standard for NCE gains (0 NCE standard), we found that about 25 percent of the 2,115 schools in our analysis would be judged as effective or ineffective on the basis of inconclusive NCE change scores; that is, a confident judgement cannot be made as to whether schools' actual scores were above or below the standard. An even greater percentage of schools would be judged on the basis of inconclusive scores using higher NCE standards (see fig. 2.1).[6]

[6]This is because as the minimum standard is raised toward the average NCE change score, more schools will have scores closer to the standard. The closer a school's score is to the standard, the greater the chance that the range within which its actual score falls will extend across that standard. The average NCE change score for the schools included in our analysis was 5.1 NCEs for advanced skills in reading—considerably higher than the federal minimum standard of 0 NCEs.

Figure 2.1: Percentage of Schools With Inconclusive NCE Change Scores Increases as the NCE Standard Increases (N=2,115)



Greatest Potential for Inaccuracy Among Schools With Test Scores for Small Numbers of Students

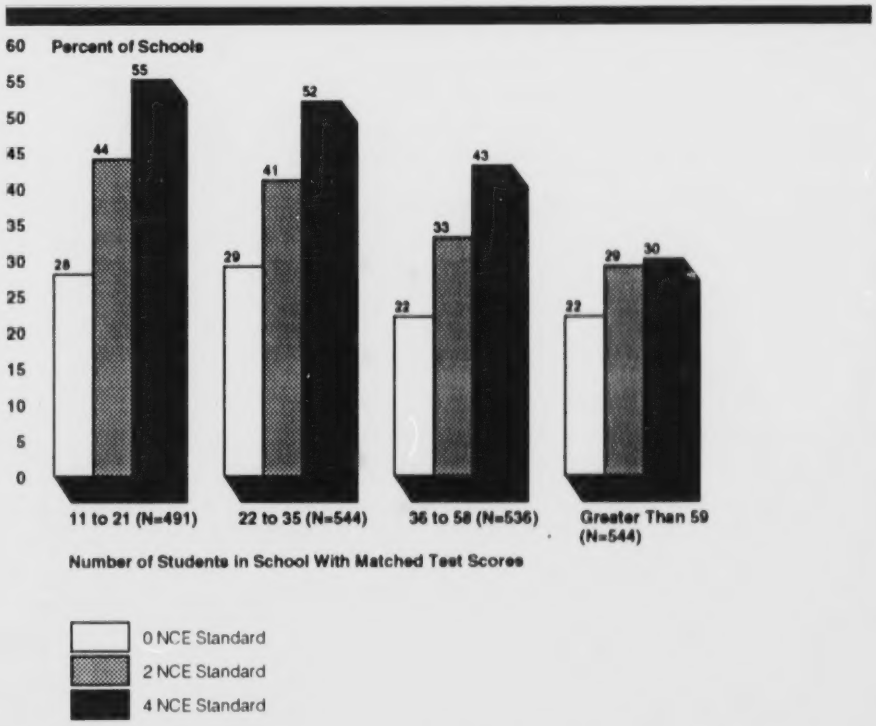
Schools with matched test scores for small numbers of students are most likely to be inaccurately judged for program improvement. This is because the range within which a school's actual NCE change score might fall is greater for a school with a small number of matched scores than it would be for a school with a large number of matched scores.[7] The wider this range, the more likely that it would extend across the NCE standard, meaning that the school would have an inconclusive change score. Schools with a small number of matched scores may include (1) rural schools, which tend to serve small numbers of students, and (2) urban schools, which tend to serve large numbers of students but, often, not the same students over 2 successive school years because of high mobility rates.

Among schools with matched test scores for 11 to 21 students (the smallest one-fourth of schools in our analysis), about 28 percent had inconclusive NCE change scores, using the 0 NCE standard. In contrast, among schools with matched scores for 59 or more students (the largest one-fourth of schools in our analysis), about 22 percent had inconclusive

[7]In our analysis, the range for a school with matched test scores for 60 students is + or - about 2 NCEs; for a school with matched scores for 15 students, the range is + or - about 4 NCEs (see app. III).

NCE change scores.[8] We found even greater differences at higher NCE standards. (See fig. 2.2.)

Figure 2.2: Schools With Matched Test Scores for Small Numbers of Students More Likely to Have Inconclusive NCE Change Scores



[8]Among schools with matched scores for 10 or fewer students, using the 0 NCE standard, 56 percent would have inconclusive NCE change scores; using a 2 NCE standard, 64 percent; and using a 4 NCE standard, 68 percent. Although we excluded such schools from our overall analysis, many may have been eligible for program improvement because they served more than 10 students during the school year.

Focus on Annual Changes in Test Scores May Neglect Needs of Schools With Lowest Achieving Students

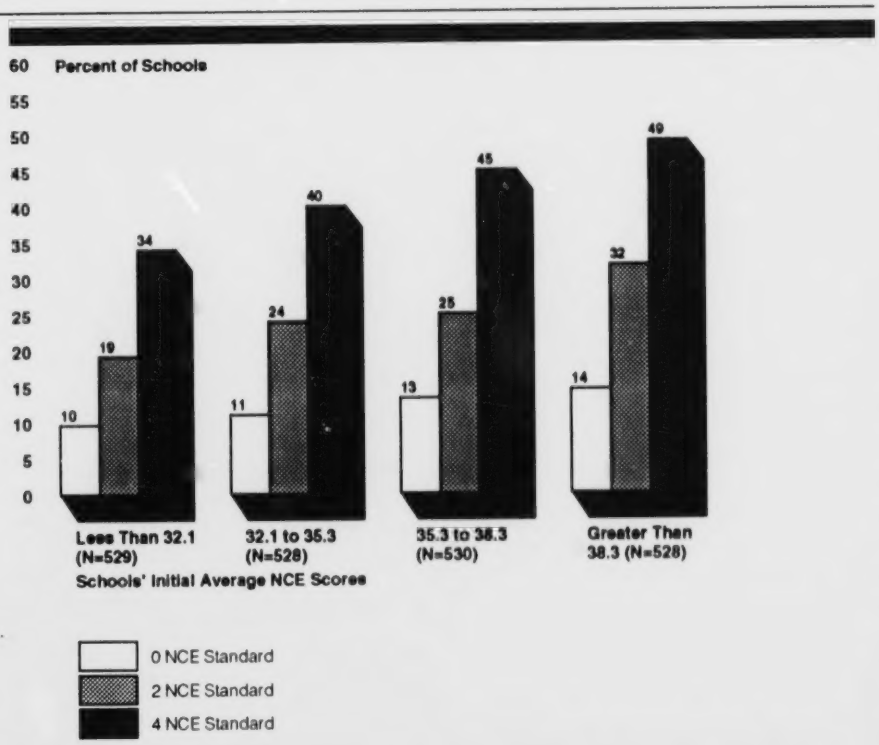
Focusing on annual changes in students' achievement-test scores may direct the attention of local and state officials away from schools whose students remain farthest below grade level but who meet the school district's standard for NCE gains. Thus, the current identification process may not hold schools accountable for the Chapter 1 goal of helping students attain grade-level proficiency. The Department of Education and some state education officials have voiced concern that using annual change scores in judging Chapter 1 effectiveness is problematic because it does not consider the absolute level of performance of Chapter 1 students.[9]

We found that schools whose students had initially lower average achievement-test scores were less likely to be identified as needing program improvement than schools whose students had initially higher average test scores.[10] For example, under the 0 NCE standard, about 10 percent of schools with the lowest average initial test scores (less than 32.1 NCEs) would be identified, compared with about 14 percent of schools with the highest average initial test scores (greater than 38.3 NCEs). Although this difference is not large, the difference between these groups is much greater when higher NCE standards are used. (See fig. 2.3.)

[9]National Assessment of the Chapter 1 Program, U.S. Department of Education, p. 54. In response to this perceived problem, Connecticut has adopted an additional accountability standard, requiring all schools whose students average less than 32 NCEs in advanced reading or math skills to be identified for program improvement even if their students make annual gains.

[10]This may be due, in part, to a statistical phenomenon known as "regression to the mean," in which (1) schools with relatively high pretest scores will, on average, show lower gains than other schools and (2) schools with relatively low pretest scores will, on average, show higher gains than other schools—independent of program quality.

Figure 2.3: Schools With Initially Lower Average Test Scores Less Likely to Be Identified Than Schools With Initially Higher Scores



Pressure to Increase Test Scores May Have Negative Effect on Chapter 1 Instruction

The high stakes placed on increasing students' achievement-test scores may have a negative effect on the instruction Chapter 1 students receive. Instruction may be narrowed, researchers have found, in response to pressure to increase achievement-test scores;[11] that is, subject areas covered on achievement tests tend to be taught to the exclusion of untested subject areas, and instruction tends to be oriented toward improving students' ability to recognize correct answers to multiple-choice questions rather than improving their higher order thinking skills. These practices are sometimes referred to as "teaching to the test."

[11]See, for example, The Influence of Testing on Teaching Math and Science in Grades 4-12, Center for the Study of Testing, Evaluation, and Educational Policy, Boston College, conducted for the National Science Foundation (SPA8954759, Oct. 1992); Kober, "The Role and Impact of Chapter 1, ESEA, Evaluation and Assessment Practices"; Mary Lee Smith, "Put to the Test: The Effects of External Testing on Teachers," Educational Researcher, Vol. 20, No. 5 (June-July 1991), pp. 8-11; Lauren B. Resnick and Daniel P. Resnick, "Assessing the Thinking Curriculum: New Tools for Educational Reform," prepared for the National Commission on Testing and Public Policy (Aug. 1989); and L. Darling-Hammond and A.E. Wise, "Beyond Standardization: State Standards and School Improvement," The Elementary School Journal (Jan. 1985), pp. 315-36.

In addition, focusing instruction on increasing students' achievement-test scores may not help Chapter 1 students succeed in the regular instructional program of the school district—one of the goals of Chapter 1. A criticism of current achievement tests is that they do not cover the content of regular classroom instruction. The Department of Education cautions, in its Chapter 1 Policy Manual, that gains on achievement tests may not translate into improved performance in regular classrooms. In response to concerns about current achievement tests, many states and districts are turning to performance assessment, testing that requires students to create products that demonstrate what they know and can do, such as a portfolio of writing samples, as opposed to answering multiple-choice questions.[12]

We found that some schools identified for the joint phase of program improvement simply re-targeted their current instructional practices on the subject areas in which test scores were too low, rather than making more comprehensive, long-term program changes involving new instructional approaches. For example, the principal of one school we visited said the school staff looked at students' test scores to determine which specific skills they needed to improve and then helped students master these skills by teaching to the test. The principal said this was not the most effective teaching approach but that schools do this because they are evaluated according to test scores. At another school we visited, the staff chose to spend more time teaching isolated skills covered on the achievement test used, the principal said, even though he considered this to be contrary to good instructional practice. Schools would do whatever is necessary to increase achievement-test scores, he said, because this is how schools are evaluated.

Conclusions

In judging program effectiveness, the Chapter 1 accountability system should rely less on achievement tests and more on holding schools directly accountable for meeting the three statutory goals of Chapter 1. Under the current system, states and districts may inaccurately judge the effectiveness of many schools' Chapter 1 programs. In addition, the current system may not provide an incentive for schools to adopt program changes directed at the Chapter 1 goals of helping children attain

[12]Testing in American Schools: Asking the Right Questions, U.S. Congress, Office of Technology Assessment, OTA-SET-519 (Washington, D.C.: U.S. Government Printing Office, Feb. 1992), p. 201. We found that among the districts involved in the joint phase that also required the use of desired outcomes other than NCE gains, 14 percent required a desired outcome related to "samples or portfolios of student work" (see app. IX).

grade-level proficiency and succeed in the regular instructional program of the district.

The accountability system could be improved by requiring school districts and states to (1) establish multiple desired outcomes that clearly relate to the statutory goals of Chapter 1 and (2) assess program effectiveness with multiple indicators of student performance. This would provide a more complete and meaningful basis for deciding if a school should be identified for Chapter 1 program improvement. Districts and states could weigh evidence from a variety of indicators, such as performance on criterion-referenced tests, results of performance assessments, student grades, the length of time children remain in Chapter 1, or achievement-test scores—should these tests continue to be used.

A requirement to use multiple outcomes and indicators, however, would make the law's local condition related to evidence other than achievement-test scores unnecessary. Leaving this local condition in the law would be confusing because considering other evidence would be required in making a determination about program effectiveness.

Recommendations to the Congress

To improve the identification process and to help reduce the emphasis placed on standardized achievement-test results, we recommend that the Congress amend the Elementary and Secondary Education Act to require (1) states to establish, for schools' Chapter 1 programs, multiple desired outcomes related to the statutory goals of Chapter 1 and (2) districts to assess program effectiveness by considering whether evidence from multiple indicators of student performance shows substantial progress in achieving these outcomes.

State education agencies should be required to specify, in their state program improvement plans, (1) the desired outcomes for Chapter 1 schools, (2) the indicators that will be used to measure student progress toward those desired outcomes, (3) minimum standards for student performance on each indicator, and (4) a definition of substantial progress toward meeting the desired outcomes as a group (that is, how districts will weigh evidence from multiple indicators in judging whether their Chapter 1 schools are effective). Districts should be allowed to set higher standards than required by their state education agency and to use, with the approval of their state agency, additional or alternative desired outcomes and indicators.

The Congress should also remove from the program improvement provisions, the local condition that, it can be argued, allows states and districts to disregard a school's achievement-test results if other indicators demonstrate that its Chapter 1 program is effective. This would prevent ambiguity about the identification process when multiple indicators of student performance are used to evaluate schools' Chapter 1 programs.

Matter for Congressional Consideration

To help ensure that states establish adequate standards for identifying Chapter 1 schools in need of improvement, the Congress should consider amending the Elementary and Secondary Education Act to require that the Secretary of Education review and approve the desired outcomes and indicators specified by states in their state program improvement plans. This review could focus on determining whether states have specified (1) desired outcomes and indicators that reflect high educational standards and pertain to the statutory goals of Chapter 1 and (2) a reasonable definition of substantial progress toward meeting multiple desired outcomes.

Agency Comments and Our Evaluation

In its February 26, 1993, comments on a draft of this report, the Department of Education agreed with our conclusion that using multiple measures of student performance would provide a better basis for deciding whether Chapter 1 schools are in need of program improvement.[13] The Department expressed concern, however, that situations could arise in which one data source indicates program success while another indicates program failure. We agree that situations such as this will inevitably occur—as they do now, such as when a school falls short of the NCE standard, but meets other desired outcomes. However, if our recommendations were implemented, state education agencies would be required to specify how evidence from all indicators will be considered together in evaluating Chapter 1 program effectiveness. State agencies could, for example, require schools to be identified for program improvement if they fail to meet two-thirds of the desired outcomes. State agencies could also place more emphasis on some desired outcomes than on others.

The Department also cautioned that multiple measures will improve the identification process only if the measures used are valid and reliable. We agree that indicators used to measure Chapter 1 program effectiveness should reflect student success in meeting the statutory goals and yield

[13]See appendix VIII for the Department's comments.

consistent results. Further, we believe the Department can play a valuable leadership role in assuring the quality of the desired outcomes and indicators used to judge Chapter 1 program effectiveness. If the Congress requires the Department to review and approve each state education agency's program improvement plan, as we suggest, this review could include consideration of the validity and reliability of proposed measures in each state's plan.

Finally, the Department noted that our analysis did not empirically verify that multiple measures are more precise than a single measure for identifying Chapter 1 schools in need of program improvement. While this is true, we continue to believe—and the Department agrees—that the use of multiple measures will improve the identification process by providing a more complete and meaningful picture of program effectiveness.

Implementation of the Joint Phase of Program Improvement Similar to Implementation of the Local Phase

Implementation of the joint phase of Chapter 1 program improvement was usually very similar to implementation of the local phase: The key players involved in developing plans and the strategies they chose changed little between the two phases. In both phases, school staff had the greatest influence in determining improvement needs and selecting improvement strategies. State education agency staff had considerably less influence on these activities than school and district staff, and state influence did not increase much in the joint phase. Some improvement strategies were used more often than others during both phases; the most commonly used strategies were increasing parental involvement and improving coordination between Chapter 1 and the regular instructional program.

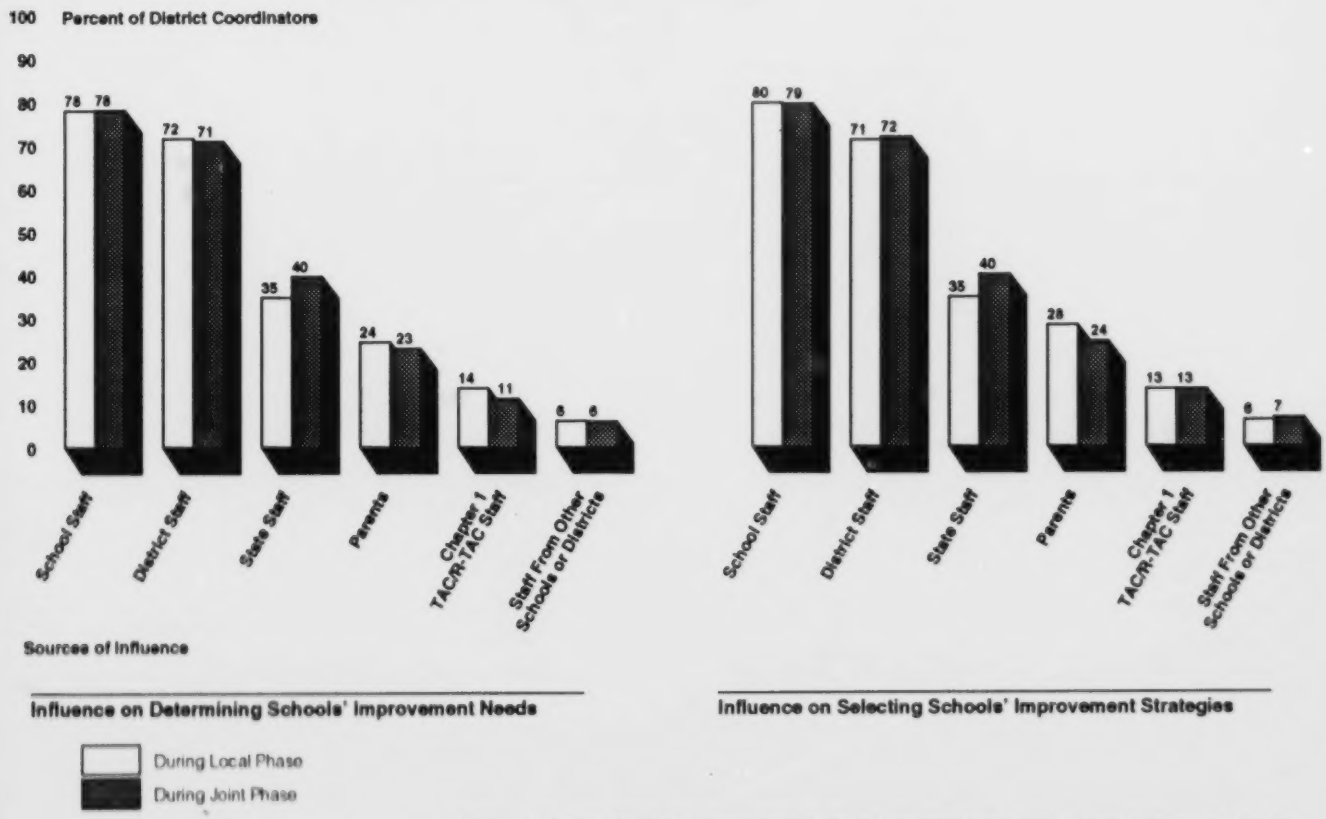
State education agencies provided more technical assistance to schools and districts during the joint phase than during the local phase. But this assistance was more often general, such as explaining the requirements of program improvement, than specific, such as helping individual schools develop their improvement plans; this assistance was also more often directed to districts than to individual schools. Specific state assistance, however, increased in the joint phase. In addition, the amount schools received was related to the number of staff that state agencies had to work with schools in the joint phase.

School year 1991-92 was the first year that most states had schools in the joint phase of program improvement. Because of the limited experience that states, districts, and Chapter 1 schools have had with the joint phase of program improvement, it is too early to draw firm conclusions about its value or effectiveness.

School Staffs Had Most Influence on Improvement Efforts During Both Phases

School staffs were considered the most influential group in developing improvement plans in both the local and joint phases. Our questionnaire for district coordinators asked about the extent of influence various groups had in two key parts of plan development: determining schools' improvement needs and selecting improvement strategies. Almost 80 percent of district coordinators rated school staffs as having a "very great" or "great" influence in determining improvement needs and selecting strategies during the joint phase. About 70 percent of district coordinators also rated district staff as having this degree of influence, but only about 40 percent rated state education agency staffs as having this much influence. (See fig. 3.1.) Generally, the greater the amount of state assistance a district received, the higher the district coordinator rated the state staff's influence.

Figure 3.1: School Staffs Had Most Influence on Program Improvement Process



Notes: (1) Figure shows the percentage of district coordinators who rated each source as having "very great" or "great" influence; (2) TAC = technical assistance center, R-TAC = rural technical assistance center.

In the schools we visited, school, district, and state staffs influenced the program improvement process in different ways. Principals typically worked together with various school staff as a planning team to determine improvement needs and select improvement strategies. These teams usually focused on the subject areas and skills in which their Chapter 1 students' achievement-test scores were low. Some schools also used a needs assessment instrument, provided by their state education agency or

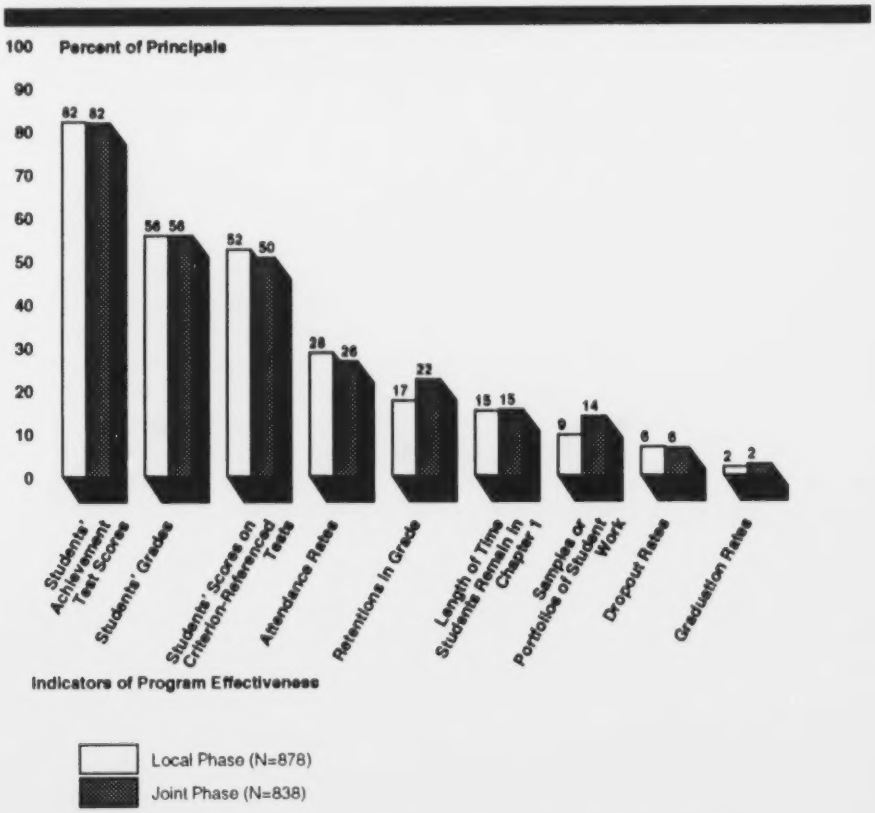
a Chapter 1 technical assistance center, or surveys of parents or teachers. District staff usually provided schools with achievement-test data and pointed out which areas needed the most improvement. District staff also participated in school planning meetings and arranged staff development training. In three of the states in which we conducted case studies, staff from the state education agency had participated in on-site meetings, at one or both of the joint-phase schools we visited, to help develop joint plans.

Schools Focused Most on Improving Achievement-Test Scores in Both Phases

Schools' program improvement activities were most often aimed at improving Chapter 1 students' achievement-test scores. Our questionnaire for principals asked about which indicators of program effectiveness were first, second, and third most important for their schools to improve during each phase of program improvement. Principals rated students' achievement-test scores the most important indicator of program effectiveness during both phases (see fig. 3.2). In the joint phase, for example, about 82 percent of principals cited student performance on achievement tests as one of the three most important indicators for their schools to improve; 56 percent cited student grades; and 50 percent cited criterion-referenced test results. In contrast, only about 15 percent of principals cited the length of time students remain in Chapter 1.[1]

[1]The indicators of program effectiveness that principals rated most important corresponded closely to the types of desired outcomes that districts used most often in identifying schools for program improvement. For information on the types of desired outcomes districts used in school year 1990-91, see appendix IX.

Figure 3.2: Principals' Views of the Most Important Indicators of Program Effectiveness During Both Phases



Note: Figure shows the percentage of principals who cited each indicator of program effectiveness as one of the three most important for their schools to improve.

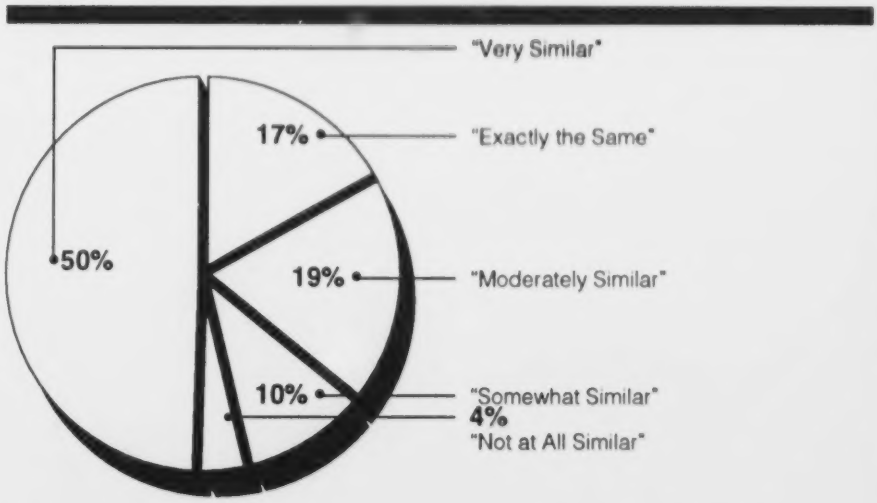
Schools in Joint Phase Usually Continued Improvement Strategies Begun in Local Phase

Schools in the joint phase typically continued to use most of the same improvement strategies that they used in the local phase. In both phases, the strategies used most often were improving coordination between Chapter 1 and the regular instructional program and increasing parental involvement. In addition, large-city schools were much more likely than other schools to use certain strategies, especially adding an extended-day or summer program for Chapter 1 students.

Most principals (67 percent) described the strategies their schools adopted in the joint phase as "exactly the same" or "very similar" to those they had adopted in the local phase (see fig. 3.3). While schools in the joint phase

sometimes dropped a strategy used in the local phase, schools were somewhat more likely to adopt a new one. About 53 percent of schools continued to use every one of their strategies from the local phase, compared with 47 percent that dropped at least one of their local-phase strategies. In addition, about 57 percent started at least one new strategy in the joint phase, compared with 43 percent that adopted no new strategies. School and district staff appeared to have confidence in the improvement strategies their schools had adopted in both phases. Few principals or district coordinators thought the strategies their schools used in the local phase had hindered school success; many more thought that the law allowed too little time to show improvement.[2]

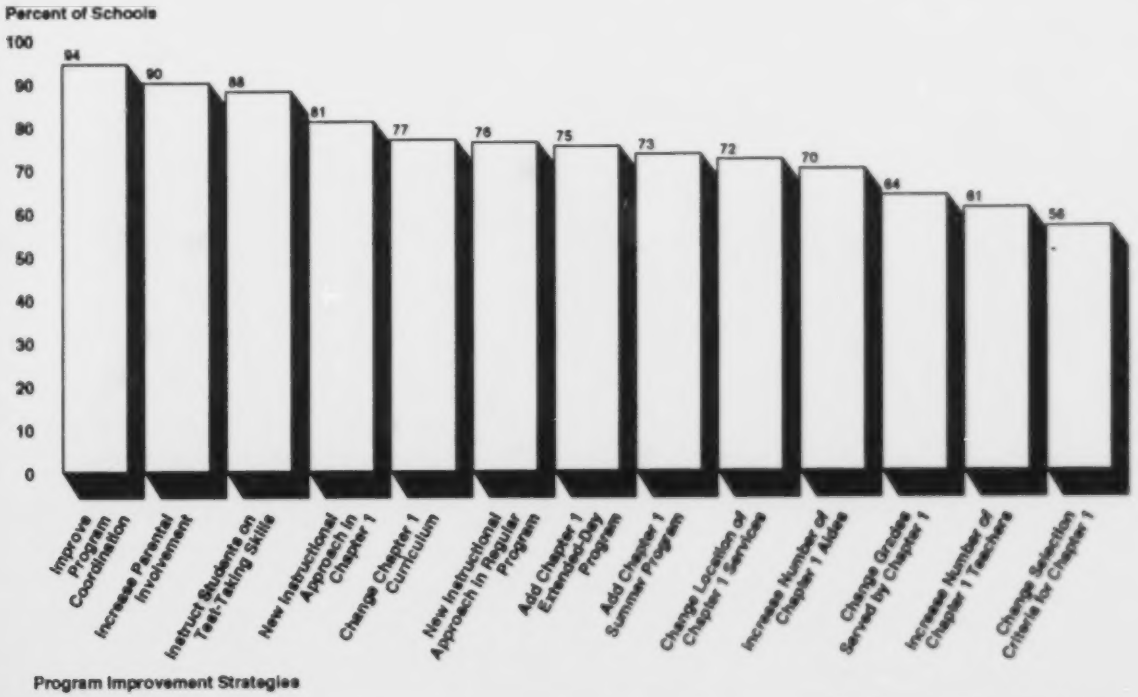
Figure 3.3: Most Principals Said Their Schools Used Similar Strategies in Both Phases of Program Improvement (N=850)



The similarity between the local and joint phases is also reflected in the percentage of schools using particular strategies in the joint phase that these schools also used in the local phase. For every strategy listed in our questionnaire, more than half of the principals that reported using a given strategy in the joint phase also reported using it in the local phase; in most cases, more than 70 percent of the schools using a particular strategy in the joint phase were using it for the second time. (See fig. 3.4.)

[2]For more information on the views of principals, district coordinators, and state coordinators on factors that hindered schools' success in the local phase, see appendix XI.

Figure 3.4: Most Schools That Used a Given Strategy in the Joint Phase Also Used It in the Local Phase



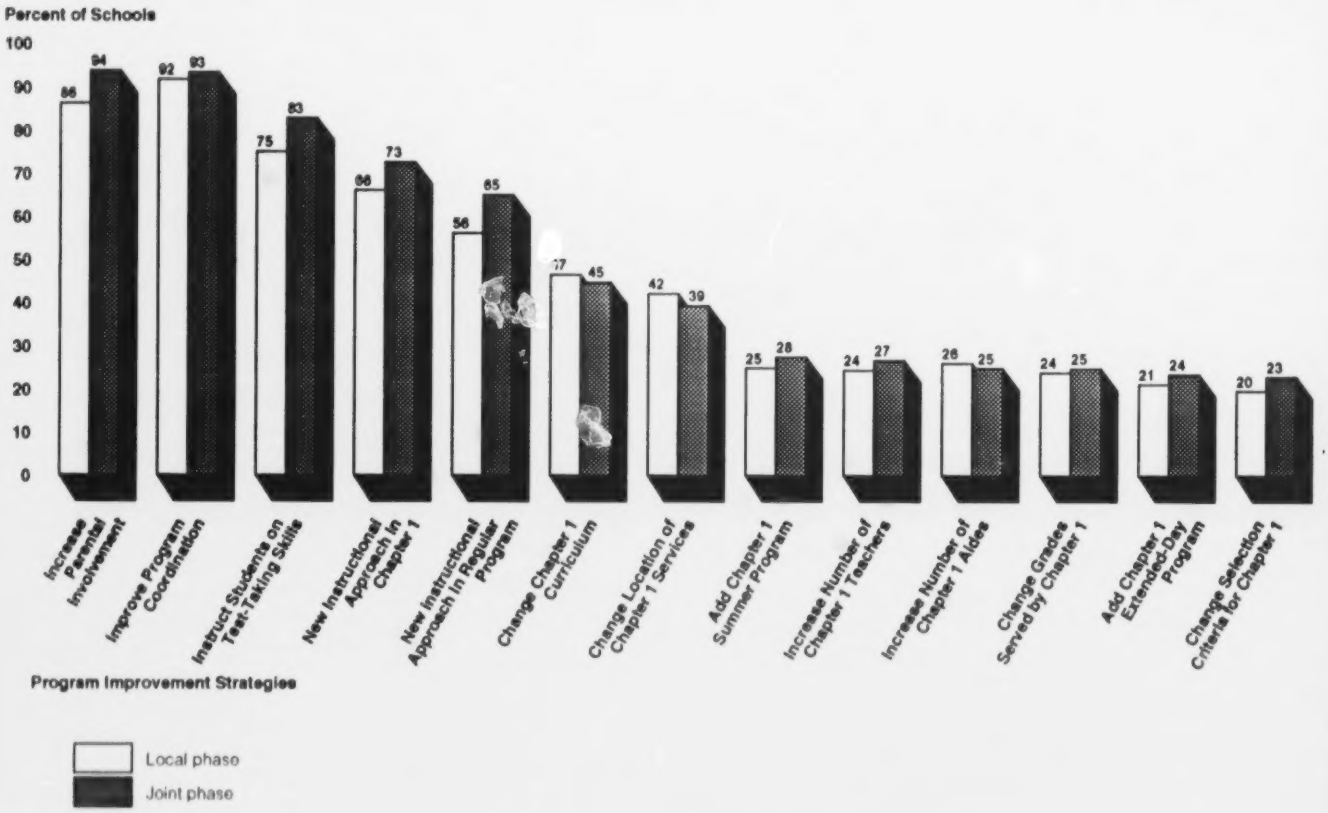
Some Improvement Strategies More Common Than Others

Principals reported using some strategies much more often than others in both phases of program improvement (see fig. 3.5). The most common strategy in the joint phase was increasing parental involvement, used by about 94 percent of schools; it was also the second most common strategy in the local phase, used by 86 percent of schools. The prevalence of this strategy may be due in part to its emphasis in the law: Districts are required to implement programs to increase parental involvement as a condition for receiving Chapter 1 funds.[3] In striving to increase parental involvement during the joint phase, schools were also addressing the factor—insufficient parental involvement—that principals rated as the greatest hindrance to their schools' success during the local phase (see app. XI). Some examples of how the schools we visited were trying to increase parental involvement included (1) holding parent-teacher conferences at the school, (2) conducting home visits, (3) offering workshops to teach parents how they can help their children learn reading

[3]Public Law 100-297 section 1016(a)(2).

and math, and (4) assigning homework and providing instructional materials for parents and children to complete together.

Figure 3.5: Some Improvement Strategies More Common Than Others During Both Phases



The second most common strategy in the joint phase was improving coordination between Chapter 1 and the regular instructional program, used by about 93 percent of schools; it was also the most common strategy in the local phase, used by 92 percent of schools. Improving coordination between Chapter 1 and the regular program is also mentioned prominently in the statute: To receive Chapter 1 funds, a district must assure, in its application to the state, that its Chapter 1 programs will "allocate time and

resources for frequent and regular coordination" of the Chapter 1 curriculum with the regular instructional program.[4] Some of the schools we visited were trying to accomplish this by allotting time during the school day for planning meetings between Chapter 1 instructors and regular program teachers;[5] others required Chapter 1 instructors and regular program teachers to develop joint lesson plans.

The third most common strategy during both phases was instructing Chapter 1 students on test-taking skills, used by about 83 percent of schools in the joint phase and 75 percent in the local phase. Instructing students on test-taking skills could represent the kind of improvement strategy the Congress did not intend for schools to adopt, because it does not involve a substantive change in the Chapter 1 program. If a significant amount of time was spent on this strategy rather than other instruction, the practice would be of dubious educational value.[6] However, instructing students on test-taking skills can also be seen as a way to level the playing field between students with more and less experience taking multiple-choice achievement tests;[7] this instruction may be an attempt to ensure that students do not score lower than they are capable of scoring because they misunderstood the test format or instructions. As long as schools are held accountable for student performance on multiple-choice achievement tests, it is likely that teachers will continue to spend time instructing students on test-taking skills.

The fourth most common strategy in both phases was adopting a new instructional approach for Chapter 1. This strategy was used by about 73 percent of schools in the joint phase and 66 percent in the local phase. Some examples of new instructional approaches for Chapter 1 adopted by the schools we visited included (1) cooperative learning, in which students work together in small, mixed-ability groups to help one another learn, and (2) Reading Recovery, a program in which expert teachers provide first

[4]Public Law 100-297 section 1012(c)(3).

[5]The extent to which planning meetings alone will bring about needed improvements in program coordination is unclear, according to experts. Literature on program coordination suggests that further actions by principals and district coordinators may be needed to better align curriculum and instruction between Chapter 1 and the regular instructional program. For a review of this literature, see Richard L. Allington and Peter Johnson, "Coordination, Collaboration, and Consistency: The Redesign of Compensatory and Special Education Interventions," in Effective Programs for Students at Risk, edited by Robert E. Slavin and others (Needham Heights, Mass.: Allyn and Bacon, 1989), pp. 320-54.

[6]Our survey of principals did not ask about the amount of time schools spent on this or other improvement strategies.

[7]Education Reform: Initial Effects in Four School Districts (GAO/PEMD-89-28, Sept. 26, 1989), p. 38.

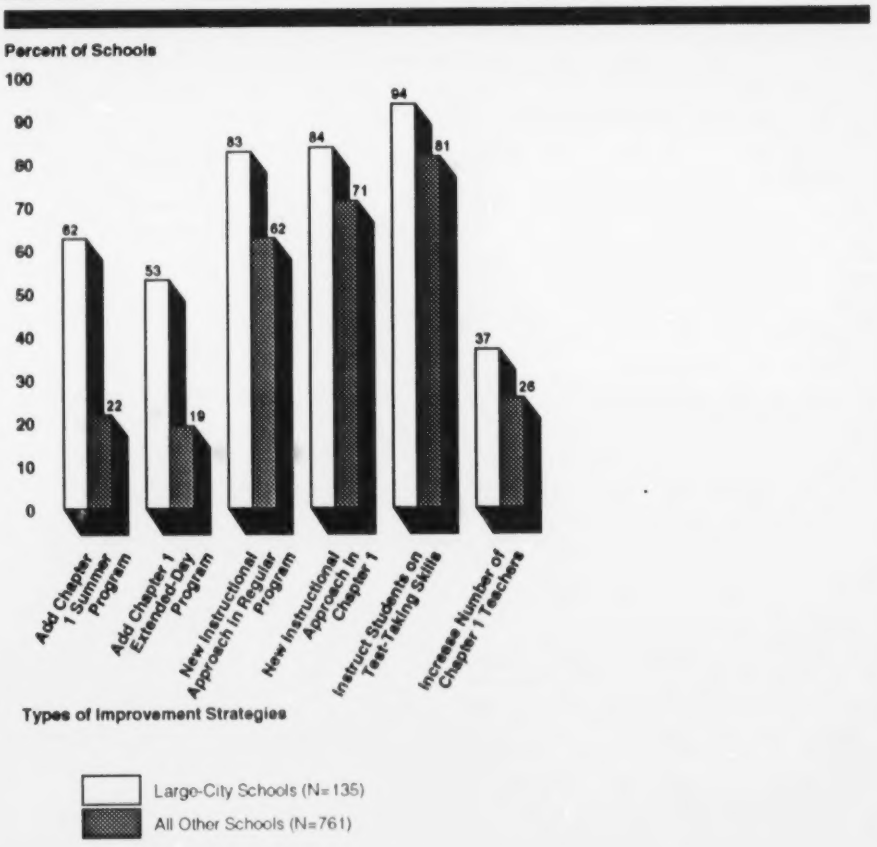
graders with intensive, one-on-one reading instruction, to bring their skills quickly up to the level appropriate for their age.

Large-City Schools Used Some Strategies More Often Than Other Schools

During both phases of program improvement, large-city schools, which serve high concentrations of disadvantaged children,[8] used some strategies more often than schools in other locations. In the joint phase, for example, 62 percent of large-city schools added summer programs for Chapter 1 students, compared with 22 percent of schools located in other areas (see fig. 3.6). In addition, 53 percent of the schools in large cities added an extended-day program to provide Chapter 1 services before or after school, compared with 19 percent of all other schools. These differences appear to show that many large-city schools are responding to the needs of their Chapter 1 students by providing more minutes of instruction per day and more continuous education year-round.

[8]Eighty-four percent of large-city schools in the joint phase are high-poverty schools (defined as having 75 percent or more of their students participating in the free or reduced-price lunch program).

Figure 3.6: Schools in Large Cities Used Some Strategies in the Joint Phase More Often Than Other Schools



Note: Large cities are defined as areas with a population of 400,000 or more or with a population density of at least 6,000 people per square mile.

State Assistance Increased During the Joint Phase

State education agencies provided more technical assistance to districts and schools during the joint phase than in the local phase. In both phases, however, this assistance addressed general program requirements more than the improvement needs of specific schools; this assistance was also directed more to district officials than to school officials. The amount of specific technical assistance that states provided was related to the number of staff the state agencies had to work with schools in the joint phase.

District coordinators and principals received more technical assistance from their state education agencies during the joint phase than during the local phase. We asked about three types of technical assistance in our questionnaires: (1) explaining the requirements of program improvement, in general; (2) providing general information about improving schools; and (3) providing specific assistance on improving individual schools. For each of these three types of assistance, the percentage of district coordinators and principals reporting a "very great" or "great" amount was higher in the joint phase than in the local phase. The type of technical assistance that increased the most was specific assistance on improving individual schools. Despite this increase, however, more than one-third of schools and about one-fifth of districts still reported a "very small" or "no" amount of specific technical assistance from their state education agency during the joint phase. (See figs. 3.7 and 3.8.) We also found that principals and district coordinators who received little or no specific assistance were much less satisfied with the amount and types of state assistance than those who received a greater amount of specific assistance.

Figure 3.7: Amount and Types of Technical Assistance That District Coordinators Reported Receiving From the State Education Agency

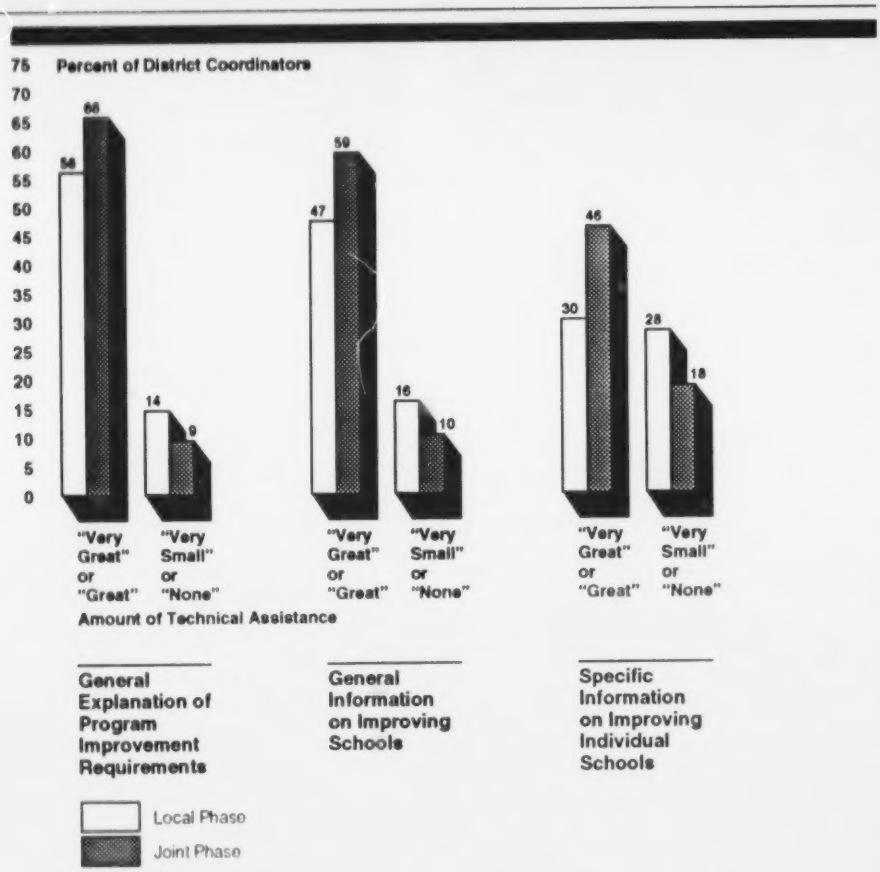
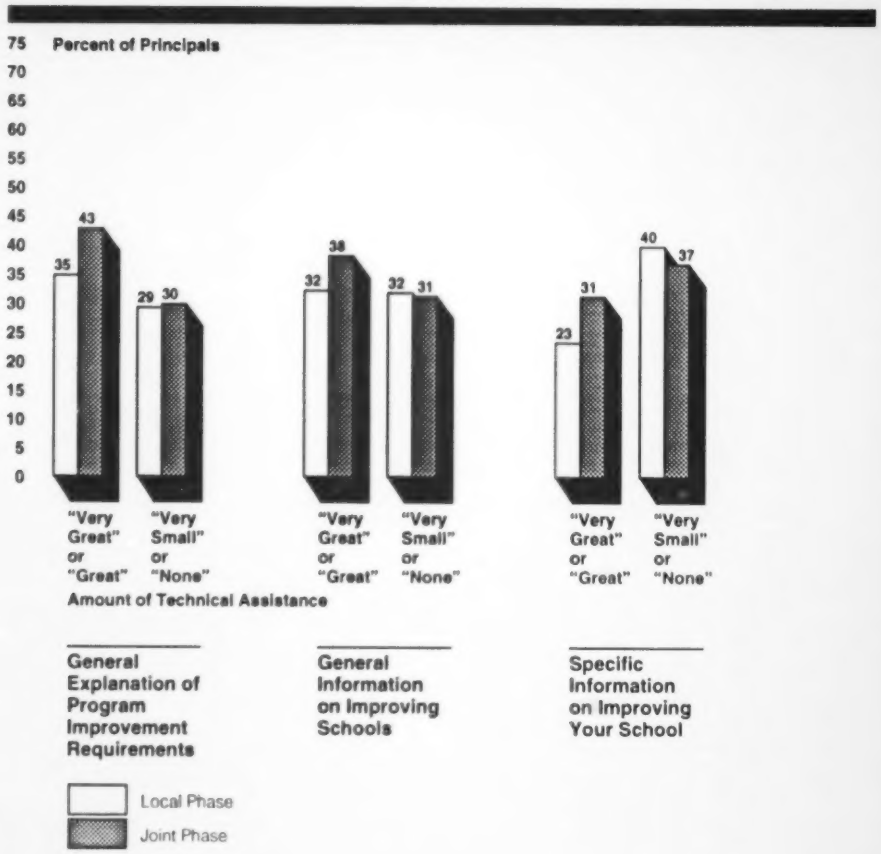


Figure 3.8: Amount and Types of Technical Assistance That Principals Reported Receiving From the State Education Agency



In both phases of program improvement, state education agencies provided higher levels of general assistance than specific assistance. During the joint phase, 66 percent of district coordinators reported a "very great" or "great" amount of assistance involving a general explanation of program improvement requirements, compared with 46 percent that reported this amount of specific assistance on improving individual schools (see fig. 3.7). Among principals, 43 percent reported a "very great" or "great" amount of assistance involving a general explanation of program improvement requirements, compared with 31 percent that reported this amount of specific assistance on improving their own schools (see fig. 3.8).

State education agencies also appear to have targeted their technical assistance more often at the district level than directly to individual schools. In both phases, district coordinators reported higher levels of each type of technical assistance than did principals (compare figs. 3.7 and 3.8).

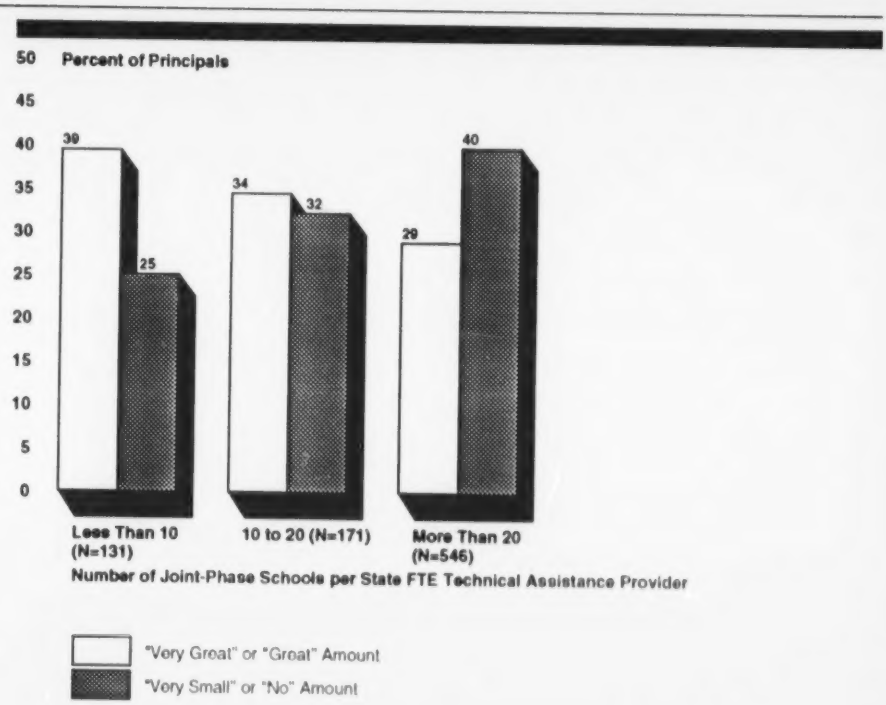
Amount of Specific Technical Assistance to Schools Related to State Staff Capacity

The amount of specific technical assistance state education agencies provided to schools in the joint phase was related to the number of full-time equivalent (FTE) state staff available to work with such schools. In states with fewer than 10 joint-phase schools per FTE state staff, these schools received significantly more specific assistance than did joint-phase schools in states with more than 20 schools per FTE.[9] (See fig. 3.9.) Several state Chapter 1 coordinators we interviewed were concerned about their agencies' ability to provide districts and schools with adequate technical assistance during the joint phase. Mississippi, for example, had only two FTE staff to serve 282 joint-phase schools.[10]

[9]A significant relationship did not exist, however, between the amount of specific assistance state agencies provided to districts and the number of FTE state staff available to work with them.

[10]Mississippi's state Chapter 1 coordinator said that the staff shortage was due to a statewide hiring freeze applied across the board, regardless of source of funds; the hiring freeze prevented him from hiring additional staff even though federal Chapter 1 funds were available to do so.

Figure 3.9: Amount of Specific Technical Assistance That Principals Reported Was Related to State Staff Capacity



Many more schools will enter the joint phase during the 1992-93 school year, further taxing the ability of some states to provide assistance in developing and implementing joint improvement plans. Some state education agencies could benefit from increased staff capacity to meet this increased need. One way to increase state capacity, cited by some state Chapter 1 coordinators, would be to allow states to use a portion of federal Chapter 1 program improvement funds[11] without obtaining prior approval from districts and schools, as currently required by law. However, the state role during the joint phase is relatively new and still evolving, and some states have added staff to work with schools in program improvement even without added flexibility in the use of program improvement funds. Therefore, it is unclear whether federal action to provide states with greater flexibility in the use of these funds is needed at this time.

[11]These funds, which totalled $14.8 million in fiscal year 1992, are separate from regular Chapter 1 allocations. States typically distribute these funds to districts in the form of small grants. In school year 1990-91, the median grant size, among those districts that received a grant, was $2,000 per district. (Source: Millsap and others, The Chapter 1 Implementation Study.)

Conclusions

Because of the limited experience that states, districts, and Chapter 1 schools have had with the joint phase of program improvement, it is too early to draw firm conclusions about its value or effectiveness. We conducted our study during the first school year in which most states had Chapter 1 schools in the joint phase. In subsequent years, the joint phase may be implemented differently. For example, as district and school officials become more familiar with the requirements of the joint phase, state officials may be able to spend less time providing general information and more time assisting individual schools with their improvement efforts. This will depend, to some extent, however, on state Chapter 1 coordinators having sufficient staff numbers and expertise.

The role and influence of state staffs and the effectiveness of the joint phase may be important in terms of improving Chapter 1 programs; the joint phase may also be instructive for policymakers as they design other accountability systems and determine what role state education agencies should play. As the nation moves toward holding schools more accountable for student outcomes, Chapter 1 program improvement represents one model for doing so. Likewise, the joint phase represents one model for state involvement in school accountability efforts.

School, District, and State Officials' Views on the Accuracy of the Program Improvement School Identification Process

Substantial portions of the principals, district Chapter 1 coordinators, and state coordinators we surveyed thought the identification process was somewhat inaccurate. This may be important because a recent study found that when local officials believed schools had been wrongly identified for program improvement, officials sometimes delayed development of improvement plans and, in some cases, undertook no improvement activities at all.[1]

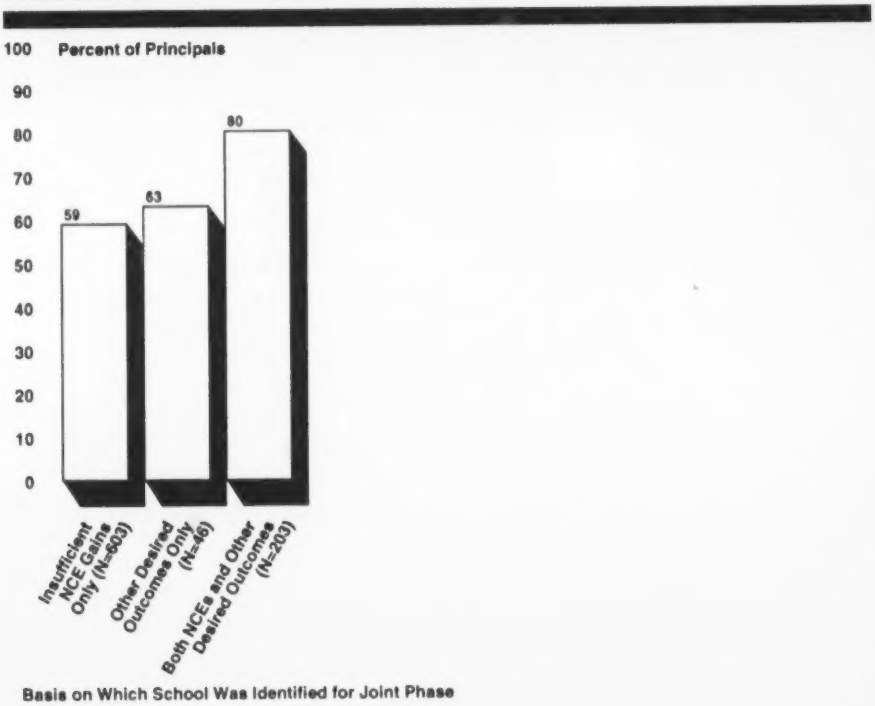
Principals' Opinions

A majority of principals thought their schools had been accurately identified to be in the joint phase during school year 1991-92, but a substantial number thought otherwise. Among principals, about 63 percent thought their schools had been accurately identified to be in the joint phase of program improvement during school year 1991-92; about 30 percent thought their schools had not been accurately identified; and 7 percent answered "don't know."

We found that principals' views on whether their schools had been accurately identified were related to the number of indicators on which the identification decision had been based. Principals whose schools were identified because of both insufficient NCE gains and lack of substantial progress toward other desired outcomes were more likely to believe their schools had been accurately identified than those whose schools were identified on the basis of NCE gains alone or other desired outcomes alone (see fig I.1).

[1]Millsap and others, The Chapter 1 Implementation Study.

Figure I.1: Principals Whose Schools Were Identified for the Joint Phase by NCE Gains and Other Desired Outcomes Were Most Likely to Say School Was Accurately Identified



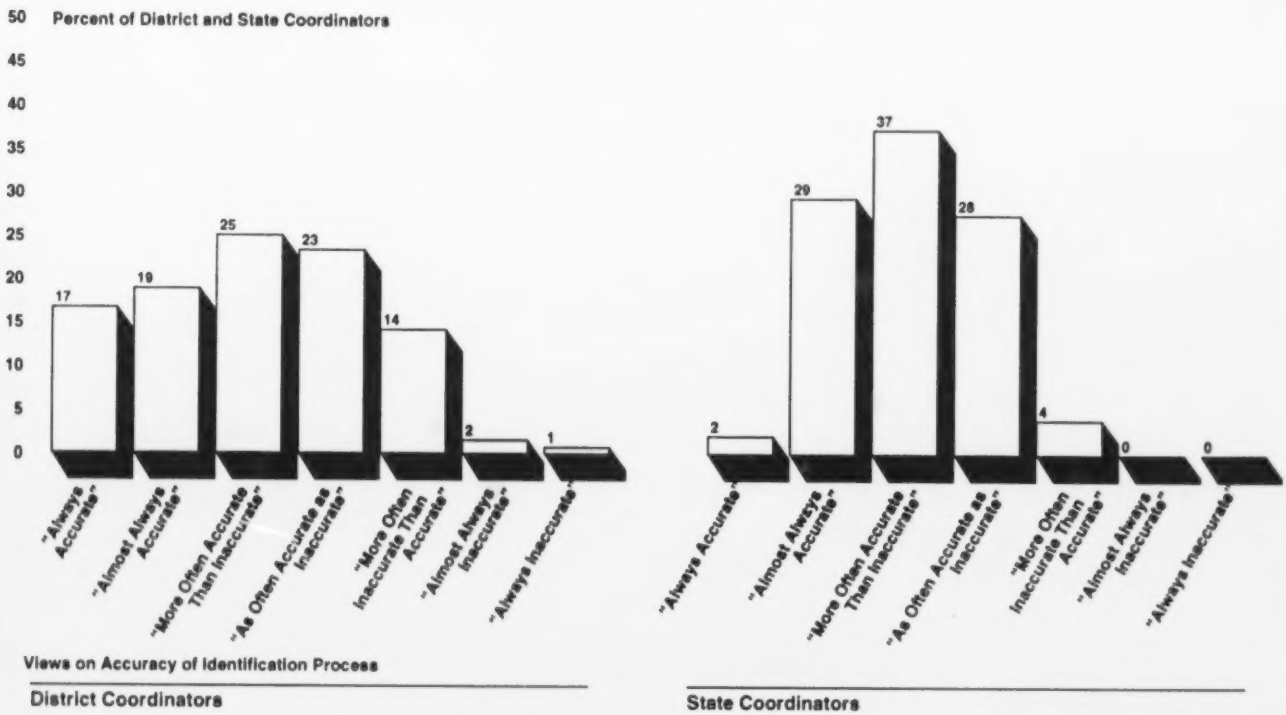
In explaining why they thought their schools had been inaccurately identified, principals were most likely to challenge the legitimacy of using achievement tests to gauge Chapter 1 program effectiveness. To understand why some principals thought their schools had been inaccurately identified, our questionnaire presented three possible reasons and asked principals to check all that applied. Sixty-three percent agreed that achievement tests "do not indicate the effectiveness of our Chapter 1 program;" 57 percent agreed that "our school was identified because we failed to meet the NCE standard, regardless of other evidence of our effectiveness;" and 54 percent agreed that "the NCE scores of a few students put our school in joint program improvement."

District and State Coordinators' Opinions

A majority of district and state Chapter 1 coordinators thought the process they used to identify schools for program improvement was accurate most of the time. About 36 percent of district coordinators and 31 percent of state coordinators said their identification process was "always" or

"almost always" accurate; in addition, 25 percent of district coordinators and 37 percent of state coordinators rated their identification process "more often accurate than inaccurate." However, a substantial proportion of each group—40 percent of district coordinators and 32 percent of state coordinators—thought the identification process they used was "as often accurate as inaccurate" or inaccurate most of the time. (See fig. I.2.)

Figure I.2: District and State Coordinators' Views on the Accuracy of the Identification Process

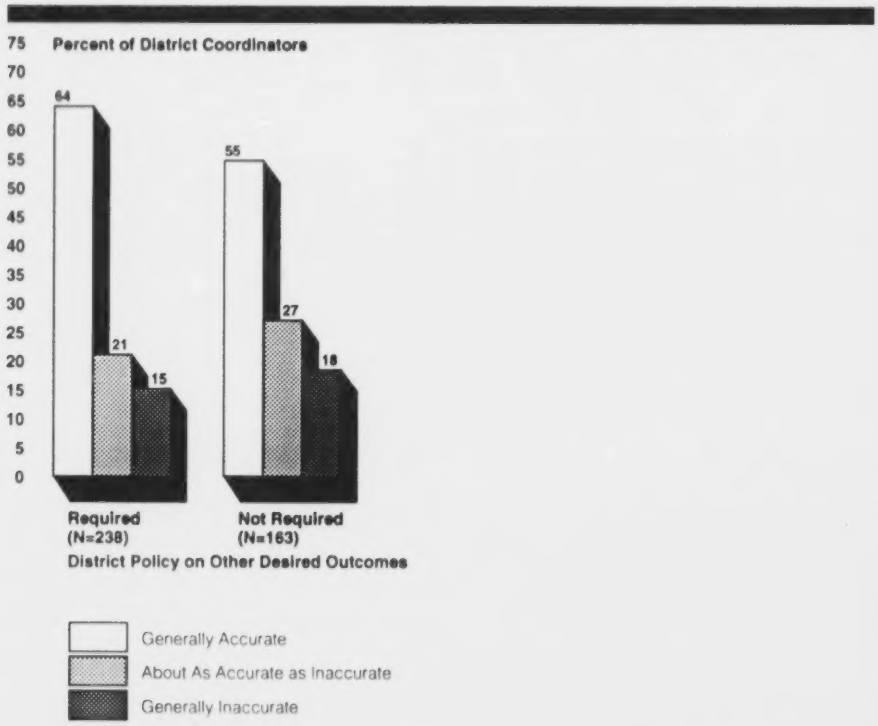


District and state coordinators who felt their identification process was not always accurate had different views about the impact of such inaccuracies. District coordinators were much more likely to believe that some schools had been inappropriately identified for the joint phase than they were to believe that any schools had, inappropriately, not been identified. About 44 percent of these district coordinators indicated that

one or more schools had been identified for the joint phase that, in their opinion, did not need to be in program improvement; only about 7 percent indicated that some schools had not been identified for the joint phase that, in their opinion, did need to be in program improvement. State coordinators, however, were more likely to believe that schools had been inappropriately excluded than inappropriately included in the joint phase. About 20 percent said that some schools had been identified for the joint phase that did not need to be in program improvement. But about 28 percent said that some schools had not been identified for the joint phase that did need to be in program improvement.

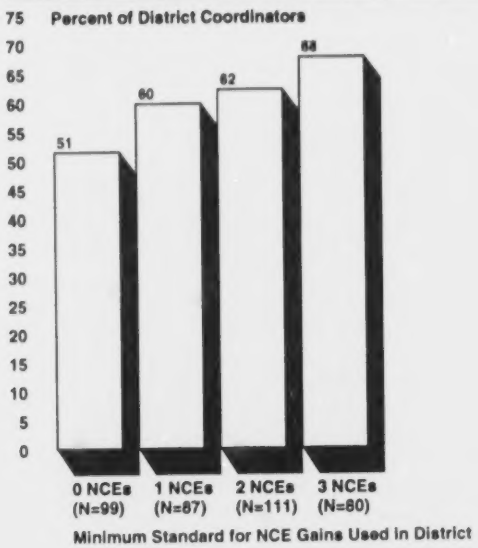
We found that district coordinators' views on the accuracy of the identification process were related to the number of desired outcomes used to judge Chapter 1 program effectiveness. Coordinators from districts that had established additional desired outcomes viewed the identification process as more accurate than those from districts that used only average NCE gains to judge program effectiveness (see fig. I.3). We also found that the higher the minimum standard for average NCE gains, the more accurate district coordinators saw the identification process (see fig. I.4).

Figure I.3: District Coordinators Were More Likely to Consider the Identification Process Accurate If Their Districts Required the Use of Desired Outcomes Other Than NCE Gains



Notes: (1) "Generally accurate" includes the responses "always accurate," "almost accurate," and "more often accurate than inaccurate;" (2) "Generally inaccurate" includes the responses "more often inaccurate than accurate," "almost always inaccurate," and "always inaccurate."

Figure I.4: the Higher the NCE Standard Used in a District, the More Likely the District Coordinator Was to Consider the Identification Process Accurate



Note: Figure shows the percentage of district coordinators who rated the identification process "always accurate," "almost always accurate," or "more often accurate than inaccurate."

Among state coordinators, however, those from states that required the use of additional desired outcomes did not see the identification process as more accurate than those from states that only require the use of NCE change scores to identify schools. In addition, there was no clear relationship between state minimum NCE standards and state coordinators' views on the accuracy of the identification process.

In explaining why they thought the identification process was inaccurate, both district and state Chapter 1 coordinators were most likely to express concern that a school's NCE change scores can be affected by the test scores of just a few students. Our questionnaires presented four possible reasons and asked district and state coordinators to indicate the extent to which each of these reasons was responsible for inaccuracies. About 85 percent of district coordinators and 52 percent of state coordinators responded that to a "very great" or "great" extent, the identification process was inaccurate because "the NCE scores of a few students can put a school in or out of program improvement." (See table I.1.)

Table I.1: Reasons Cited by District and State Chapter 1 Coordinators for Inaccuracies in Identification Process

Reasons for inaccuracy	Percentage saying this was a reason, to a "very great" or "great" extent, for inaccuracies in the identification process	
	District coordinators[a]	State coordinators[b]
School identification is based on only 1 year of data	56	43
Norm-referenced tests do not indicate Chapter 1 program effectiveness	69	35
Schools are identified if they fail to meet the NCE standard, regardless of other evidence of their effectiveness	79	35
The NCE scores of a few students can put a school in or out of program improvement	85	52

[a]Number of respondents on individual items ranged from 322 to 336.

[b]Number of respondents on individual items ranged from 48 to 49.

Number and Characteristics of Schools and Districts in the Joint Phase During School Year 1991-92

About 1,400 Chapter 1 schools in about 500 districts were identified for the joint phase of program improvement during school year 1991-92. The number of joint-phase schools and districts in each state in school year 1991-92, as well as the number of schools and districts that provided Chapter 1 services during the preceding school year, 1990-91, is shown in table II.1.

Table II.1: Schools and Districts in the Joint Phase of Program Improvement by State

State	Chapter 1 schools in state, school year 1990-91	Chapter 1 schools in joint phase, school year 1991-92	Chapter 1 districts in state, school year 1990-91	Chapter 1 districts in joint phase, school year 1991-92
Alabama	934	13	128	10
Alaska	199	7	52	3
Arizona	525	28	209	13
Arkansas	885	95	316	53
California	3,880	[a]	742	[b]
Colorado	581	11	175	6
Connecticut	636	1	165	1
Delaware	110	3	19	2
District of Columbia	104	0	1	0
Florida	1,051	18	67	6
Georgia	1,078	9	184	9
Hawaii	88	28	7	7
Idaho	527	11	109	8
Illinois	2,351	182	954	12
Indiana	1,157	35	293	13
Iowa	1,007	0	430	0
Kansas	739	4	302	3
Kentucky	1,054	12	175	11
Louisiana	851	38	66	17
Maine	557	4	168	2
Maryland	435	69	24	11
Massachusetts	1,012	6	325	1
Michigan	2,073	101	562	43
Minnesota	941	4	427	1
Mississippi	779	282	159	84
Missouri	631	3	482	2
Montana	581	3	313	2
Nebraska	558	3	322	3

(continued)

State	Chapter 1 schools in state, school year 1990-91	Chapter 1 schools in joint phase, school year 1991-92	Chapter 1 districts in state, school year 1990-91	Chapter 1 districts in joint phase, school year 1991-92
Nevada	99	5	16	3
New Hampshire	330	1	159	1
New Jersey	2,038	8	592	4
New Mexico	400	10	88	4
New York	3,052	6	719	3
North Carolina	1,341	25	134	11
North Dakota	333	0	255	0
Ohio	2,015	1	613	1
Oklahoma	1,119	3	568	3
Oregon	790	1	298	1
Pennsylvania	2,312	28	500	9
Rhode Island	154	3	37	2
South Carolina	540	31	91	11
South Dakota	432	2	177	2
Tennessee	908	99	139	17
Texas	[b]	75	998	38
Utah	275	6	40	3
Vermont	299	7	61	5
Virginia	826	61	135	23
Washington	990	3	284	3
West Virginia	558	47	55	18
Wisconsin	1,379	21	422	17
Wyoming	119	2	46	2
Total	**45,633**	**1,415**	**13,603**	**504**

[a]Although California reported 356 schools in the joint phase, we do not include them here because the state education agency considers all schools identified for program improvement to be in the joint phase; California schools do not go through a local phase.

[b]Information not available.

The exact number of joint-phase schools and districts is difficult to determine, however, because (1) state coordinators could not always provide us with definitive mailing lists and (2) many of the principals and district coordinators we surveyed claimed that their schools were not in the joint phase. In some cases, the mailing lists that state coordinators provided us with did not represent the final number of districts and

schools involved in the joint phase; even in March 1992, with the school year more than half over, some state coordinators could not tell us exactly which schools were in the joint phase. A common reason was that states were still awaiting, or had not yet finished analyzing, test score data from districts using a fall-to-fall testing cycle.

Despite being included on their state's mailing list of joint-phase schools and districts, many principals and district coordinators who returned a questionnaire indicated that they were not involved in the joint phase of program improvement. We received valid responses from 478 district coordinators and 1,199 principals.[1] However, about 13 percent of the district coordinators said no schools in their district were currently in the joint phase of program improvement. In addition, about 18 percent of the principals said their schools had not been identified for the joint phase during school year 1991-92, and 4 percent said they did not know whether or not their schools were in the joint phase.

We did not systematically investigate the reasons why some principals and district coordinators said they were not involved in the joint phase; however, we have some anecdotal evidence. One district coordinator, for example, notified us that her district was appealing the state's decision to identify one of its schools for the joint phase, claiming this decision was in error; when we later received this district coordinator's questionnaire, it indicated that no schools were in the joint phase. Another district coordinator, from a large urban district in which many principals claimed not to be in the joint phase, said that some of these principals did not understand the program improvement process, even though he had explained the joint phase in several meetings. In a few cases, officials said that a school was closing down or not offering Chapter 1 services for the 1991-92 school year; thus, although these schools had failed to improve sufficiently during the local phase, they would not be entering the joint phase. In some cases, the state coordinators included a school on their joint-phase mailing lists by mistake. Finally, it is possible that some principals and district coordinators were mistaken when they indicated they were not involved in the joint phase.

Our questionnaires for principals and district coordinators included a variety of questions intended to gather basic descriptive information about schools and districts involved in the joint phase of program improvement. In the average joint-phase school, 36 percent of the students were served

[1]We defined a valid response as one that included an answer for the first question, which asked about whether the school or district was in the joint phase.

by Chapter 1. In addition, most of these schools had a substantial proportion of students from economically disadvantaged families; on average, 64 percent of the students in these schools participated in the free or reduced-price lunch program. The distribution of joint-phase schools by poverty level is shown in table II.2.

Table II.2: Distribution of Schools in the Joint Phase Among Different Levels of Poverty

Poverty level in school	Percentage of schools (N=827)
High (75 percent or more of students in free or reduced-price lunch program)	40
Medium (50 to 74 percent of students in free or reduced-price lunch program)	30
Low (0 to 49 percent of students in free or reduced-price lunch program)	30
Total	**100**

Joint-phase schools were most often located in rural areas, followed by small towns, mid-size cities, and large cities (see table II.3).

Table II.3: Distribution of Schools in the Joint Phase Among Different Locations

Location of school	Percentage of schools (N=896)
Large central city	15
Urban fringe of large city	5
Mid-size central city	17
Urban fringe of mid-size city	7
Large town	3
Small town	23
Rural area	29
Total	**99**

Note: Numbers do not total to 100 due to rounding.

Source: GAO analysis of valid responses to survey of joint-phase school principals, using the location codes from the Department of Education's Common Core of Data Public School Universe (1988-89).

Among the principals who answered our questions about program improvement funding, more than half reported that their school had been allocated no funds for program improvement in school year 1991-92; more

than half also reported no such funds during the prior school year, 1990-91. Among those who reported receiving some program improvement funds in school year 1991-92, the median amount was $2,000; for school year 1990-91, it was $1,359.

Additional descriptive information is provided in appendixes IV, V, and VI, which present aggregate responses to all questions in our state, district, and school questionnaires, respectively.

Technical Description of Statistical Analyses

Based on our review of the literature and interviews with local, state, and federal education officials, we had several specific concerns about the accuracy of the identification process when only NCE change scores are used to evaluate schools for program improvement. One of our primary concerns was that some schools may be identified—and others not identified—on the basis of scores that do not constitute strong statistical evidence for deciding whether or not the school met the standard for NCE gains. We were also concerned that small schools might be more likely than large schools to have such statistically inconclusive NCE change scores. Finally, we were concerned that schools with the lowest achieving students might be identified for program improvement less often than schools with higher achieving students. To demonstrate the extent to which these problems occurred, we analyzed a data set containing achievement-test scores for Chapter 1 students in one large state. This appendix describes the technical details of our analysis.[1]

Data Source and Scope of Analysis

We obtained a data set that initially contained achievement-test scores in reading, math, or language arts for 165,707 students in 2,475 Pennsylvania schools. This data set, which included test scores from school years 1989-90 and 1990-91, is the same data set that Pennsylvania's state education agency uses to track the progress of its Chapter 1 students and schools. We then used several criteria to limit the scope of our analysis to include only certain students and schools, as well as certain types of achievement-test scores. These criteria and our rationale for applying them are described below.

First, we limited our analysis to include only students' achievement-test scores for reading. We decided to use only reading test scores primarily because, in the Pennsylvania data set, far more schools had students with achievement-test scores for reading than for math.

Second, we further limited our analysis to include only students' test scores for advanced skills. We chose to focus on advanced reading skills primarily because we could easily determine the scores used to measure advanced skills, but not the scores used to measure basic skills. Advanced skills in reading are measured by students' scores on the reading comprehension portion of an achievement test. In contrast, basic skills in reading may be measured by students' scores on at least two different

[1]We modeled our analysis on a study by Alan Davis of the University of Colorado at Denver, who served as a consultant for our study. See Alan Davis, "Upping the Stakes: Using Gain Scores to Judge Local Program Effectiveness in Chapter 1," Educational Evaluation and Policy Analysis, Vol. 13, No. 4 (Winter 1991), pp. 380-88.

portions of an achievement test—for example, vocabulary or word analysis subtests—or by students' total scores in reading.

Third, we included only students in grades 2-12 because, for children below second grade, Chapter 1 policy guidelines prohibit schools from using achievement-test scores for program improvement purposes.

Fourth, we included only students with matched test scores in a particular school because schools' NCE change scores are supposed to represent the average difference in the same students' achievement-test scores from one year to the next. We also made sure that students' matched scores were obtained over a 1-year period; that is, students were tested on either a fall-to-fall or spring-to-spring cycle.

Fifth, we limited our analysis to include only schools with matched test scores for more than 10 students. Schools that serve 10 or fewer students in Chapter 1 during an entire school year are exempted by law from consideration for program improvement.

After applying all of the above criteria and eliminating records with duplicate identification numbers and invalid test scores, the final data set we used in our analysis contained information on 106,825 Chapter 1 students in 2,115 schools. In these schools, the average Chapter 1 student pretest score was 35.1 NCEs and their average posttest was 40.2 NCEs; thus, the average NCE change score in these schools was 5.1 NCEs. The median number of Chapter 1 students per school in our analysis was 36.

Methodology

One of our primary methods for demonstrating the extent of imprecision in the identification process involved constructing confidence intervals around schools' NCE change scores. We used confidence intervals as a means of estimating the extent to which schools' NCE changes scores were affected by measurement error (explained below).

Calculating NCE Change Scores

For each student in our data set, we computed the change in his or her achievement-test scores from one year to the next by subtracting the pretest score from the posttest score. Then we computed the average of these changes for all the students in each school. These averages constituted the schools' NCE change scores.

Estimating Measurement Error

One problem affecting the use of NCE change scores to identify Chapter 1 schools for program improvement is measurement error.[2] Individual students' scores on achievement tests are not completely reliable; on repeated testing these scores would be subject to a small degree of random fluctuation. In addition, individual students' change scores are less reliable than either their pretest or posttest scores because change scores combine the measurement errors associated with both tests. Similarly, the NCE change score for a school is less reliable than the average NCE score for its students at one point in time. Thus, a school's NCE change score is an imprecise measure of its "true" NCE change score—the hypothetical score that would be obtained if pretest and posttest scores were completely reliable, that is, if these scores were not subject to random variation because of measurement error.

To assess the accuracy of the identification process, we accounted for the measurement error associated with schools' NCE change scores. To do this, we estimated the overall variance in students' change scores due to measurement error. In developing this estimate, we first calculated the reliability of students' change scores, based on the following formula:

$$\frac{(r_x * \sigma_x^2) + (r_y * \sigma_y^2) - (2 * r_{xy} * \sigma_x * \sigma_y)}{\sigma_x^2 + \sigma_y^2 - (2 * r_{xy} * \sigma_x * \sigma_y)}$$

where

r_x = pretest reliability (.78),
σ^2_x = variance of pretest scores (148.6),
r_y = posttest reliability (.84),
σ^2_y = variance of posttest scores (202.8),
r_{xy} = correlation between pretest and posttest scores (.41),
σ_x = standard deviation of pretest scores (12.2), and
σ_y = standard deviation of posttest scores (14.2).

Variances, standard deviations, and correlations were calculated from the test scores of all students from all schools in the data set. Pretest and

[2]Another problem is known as "regression to the mean." This term refers to a statistical phenomenon in which (1) schools with relatively high pretest scores will, on average, show lower gains than other schools, and (2) schools with relatively low pretest scores will, on average, show higher gains than other schools—independent of program quality. To simplify our analysis, we did not adjust for regression to the mean.

posttest reliability coefficients were based on a formula for estimating reliability in a restricted population.[3]

The result of this formula indicated that the reliability of individual students' change scores was .69. From this reliability coefficient we estimated that about 31 percent (1.00 - .69) of the variance in individual students' change scores was attributable to measurement error. Finally, since the variance in individual students' change scores in our analysis was 207.36, we estimated the overall variance due to measurement error as 64.3 (.31 x 207.36). We then used this estimate in developing confidence intervals around each school's NCE change score.

Constructing Confidence Intervals

We constructed confidence intervals around each school's NCE change score to reflect the amount of measurement error associated with that score.[4] These confidence intervals were based on the following standard equation:

$$\overline{X} \pm z * \sqrt{\frac{\sigma^2}{n}}$$

The components of this equation are described below:

$\overline{X}$: This term represents the NCE change score for the school.

z: This term reflects the degree of confidence we wanted to have that a school's "true" NCE change score falls between the upper and lower bounds of the confidence interval. By using a value of 1.96 for z, we developed confidence intervals at the 95 percent level. This means that we can be 95 percent confident that a school's true NCE change score falls within the confidence band.

σ^2: This term represents the overall variance in individual students' change scores that is attributable to measurement error (64.3), as explained earlier.

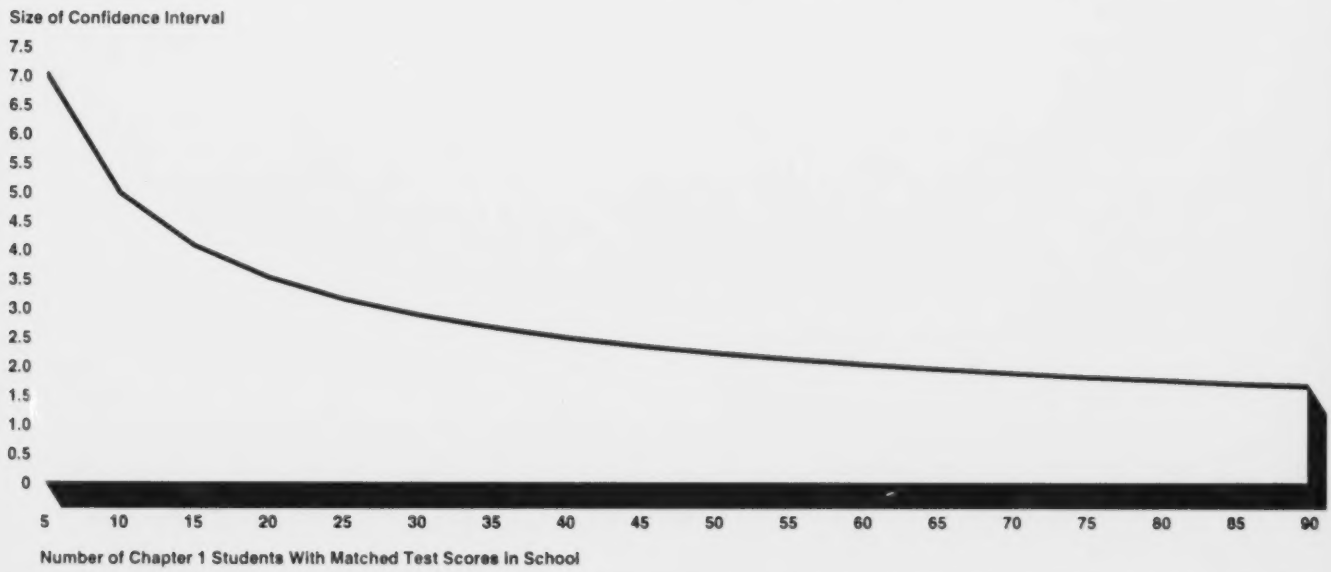
[3]See H. Gulliksen, Theory of Mental Tests (Hillsdale, N.J.: Erlbaum, 1987), p. 111. The components of this formula include the overall variance of NCE scores in the full population (443.52), the average internal consistency estimate of reliability for the achievement tests most commonly used by the schools in our analysis (.93), and the variance of the pretest scores (148.6) or posttest scores (202.8).

[4]While confidence intervals are most commonly used to reflect the error attributable to making estimates about a population from a sample, the confidence intervals we constructed reflect measurement error arising from standardized achievement tests rather than from sampling error.

n: This term represents the number of students on which the school's NCE change score is based.

Because σ^2 is held constant for all schools in our analysis, the difference in the size of schools' confidence intervals is determined solely by the number of students contributing to a school's NCE change score (n). As shown in fig. III.1, the width of the confidence interval decreases as the number of students contributing to the NCE change score increases. For example, if a school had matched test scores for only 15 students, the confidence interval for its NCE change score would be + or - about 4 NCEs; if a school had matched test scores for 60 students, the confidence interval for its NCE change score would be + or - about 2 NCEs.

Figure III.1: Confidence Intervals Become Narrower as the Number of Students With Matched Test Scores Increases



GAO's Analysis

We performed three analyses using our data set; these corresponded to the three concerns outlined at the beginning of this appendix. We conducted each analysis using three different standards for NCE gains (0 NCEs, 2 NCEs, and 4 NCEs), to reflect the range of NCE standards used in different states and districts around the country.

First, we determined the number of schools with NCE change scores that, because of measurement error, would not permit a confident judgement about whether students actually exceeded or fell short of various standards for NCE gains. If the NCE standard fell within the range of the confidence interval, we classified the school's NCE change score as inconclusive. For these schools, we could not be confident about whether the true NCE change score was above or below the standard. Conversely, if the NCE standard did not fall within the range of the confidence interval, then we classified a school's NCE change score as conclusive. For these schools, we could be 95 percent confident that the true NCE change score was either above or below the standard.

Second, we examined the extent to which schools with matched test scores for small numbers of students were more likely to have inconclusive NCE change scores than schools with matched scores for large numbers of students. We divided the schools in our data set into four approximately equal-sized groups, based on the number of students with matched test scores. We then calculated the percentage of each group with inconclusive NCE change scores.

Third, we estimated the extent to which schools with initially high average achievement-test scores were more likely to be identified than schools with initially low average test scores. We divided the schools in our data base into four approximately equal-sized groups, based on their Chapter 1 students' average pretest scores. Then we calculated the percentages of each group that had NCE change scores above and below the standard for NCE gains.

Results of Survey of State Chapter 1 Coordinators

U.S. GENERAL ACCOUNTING OFFICE
JOINT PROGRAM IMPROVEMENT STUDY
Survey of State Chapter 1 Coordinators

INTRODUCTION

The U.S. General Accounting Office, an agency of the Congress, is conducting a study of state and local implementation of the Chapter 1 program improvement provision. As part of our study, we are sending this questionnaire to all State Education Agencies (SEAs) in the nation.

The primary purpose of this questionnaire is to obtain information on states' experiences with the joint SEA/LEA phase of program improvement. Schools enter the joint phase if they are identified as needing improvement after their local plan has been in effect for one full school year.

INSTRUCTIONS

Please complete this questionnaire for program improvement activities occurring during school year (SY) 1990-91 or SY 1991-92, unless otherwise specified.

This questionnaire should be answered by you or the person you designate as most knowledgeable about Chapter 1 program improvement activities in your state.

Please complete and return this questionnaire in the enclosed business reply envelope within 2 weeks of receipt to:

Tim Silva
U.S. General Accounting Office
Room 6737
441 G St., NW
Washington, DC 20548

If you have any questions, please call Tim Silva or Richard Wenning, collect, at (202)401-8921.

Please provide the name of the one person responsible for completing this questionnaire so that we may call and clarify information, if necessary.

Name: _____

Title: _____

Office Phone: _____

State: _____

LEA AND SCHOOL INFORMATION, SY 1990-91

1. During school year (SY) 1990-91, how many Local Education Agencies (LEAs) in your state provided Chapter 1 services? (ENTER NUMBER) (N=51)

   Median: 175
   Range: 1 to 998 LEAs

2. During SY 1990-91, how many schools in your state provided Chapter 1 services? (ENTER NUMBER) (N=50)

   Median: 759
   Range: 88 to 3,880 Schools

3. During SY 1990-91, how many schools in your state, if any, were in joint program improvement? (ENTER NUMBER; IF NONE, ENTER '0') (N=51)

   Total: 359 Schools (In 5 states, including 289 in California, which does not have a local phase)

4. During SY 1990-91, how many schools in your state were in local program improvement? (ENTER NUMBER) (N=49)

   Median: 122
   Range: 9 to 696 Schools in local program improvement, SY 1990-91

5. Of the schools that were in local program improvement during SY 1990-91, (1) how many were in their first year of the local phase and (2) how many were in their second year of the local phase? (ENTER NUMBER; IF NONE, ENTER '0') (N=46)

   Median: 96
   (1) Range: 3 to 438 Number in their first year of local phase, SY 1990-91

   Median: 18
   (2) Range: 0 to 292 Number in their second year of local phase, SY 1990-91

IDENTIFICATION OF SCHOOLS FOR JOINT PROGRAM IMPROVEMENT

6. Has your state completed the identification of all schools that will be in joint program improvement during SY 1991-92? (CHECK ONE) (N=50)

   1. [32] Yes

   2. [18] No --> About when will your state complete identification of schools for joint program improvement? (ENTER DATE)

   /____/____/____/
   MO DA YR

7. How many schools has your SEA identified, thus far, to begin joint program improvement during SY 1991-92? (ENTER NUMBER; IF NONE, ENTER '0') (N=51)

   Median: 7
   Range: 0 to 287 Schools in joint program improvement, SY 1991-92

8. Of the schools your SEA has identified, thus far, to begin joint program improvement during SY 1991-92, (1) how many are beginning the joint phase after one year in the local phase and (2) how many are beginning the joint phase after two years in the local phase? (ENTER NUMBER; IF NONE, ENTER '0') (N=49)

   Median: 0
   (1) Range: 0 to 287 Number beginning joint phase after one year in the local phase

   Median: 3
   (2) Range: 0 to 101 Number beginning joint phase after two years in the local phase

9. Has your state exempted any schools from joint program improvement for SY 1991-92? (CHECK ONE) (N=51)

   1. [6] Yes **(GO TO QUESTION 10)**

   2. [45] No **(GO TO PAGE 3, QUESTION 12)**

10. How many schools were exempted from joint program improvement for SY 1991-92? (ENTER NUMBER) (N=5)

    Median: 2
    Range: 1 to 3 Schools

11. What were the reasons that schools were exempted from joint program improvement during SY 1991-92? (CHECK ALL THAT APPLY) (N=5)

1. [1] The mobility of the student population
2. [1] The extent of educational deprivation among participating children
3. [0] The difficulties involved in dealing with older children in Chapter 1 programs in secondary schools
4. [2] Indicators other than improved achievement demonstrated the positive effects of Chapter 1 on participating children
5. [2] A change in the review cycle, measurement instrument used, or other measurement problems rendered the results invalid or unreliable
6. [3] Other reason(s) (PLEASE SPECIFY)

_____

_____

_____

12. IF ANY SCHOOLS HAVE BEEN IDENTIFIED TO BE IN JOINT PROGRAM IMPROVEMENT DURING SY 1991-92, CONTINUE TO QUESTION 13; IF NO SCHOOLS HAVE BEEN IDENTIFIED, GO TO PAGE 6, QUESTION 17.

13. Of all the schools identified to be in joint program improvement during SY 1991-92, how many, if any, were identified for each of the following reasons? (ENTER NUMBER; IF NONE, ENTER '0') (N=45)

NUMBER

1. Median: 6; Range: 0 to 165 — Number of schools identified only because of insufficient NCE gains
2. Median: 0; Range: 0 to 20 — Number of schools identified only because of lack of substantial progress toward other desired outcomes
3. Median: 0; Range: 0 to 153 — Number of schools identified because of both insufficient NCE gains and lack of substantial progress toward other desired outcomes

14. As of February 1, 1992, about how many schools in your state, if any, will be fully implementing a joint program improvement plan? (ENTER NUMBER; IF NONE, ENTER '0') (N=48)

Median: 1
Range: 0 to 289 — Schools fully implementing a joint program improvement plan

15. Consider the schools in your state that will be in joint program improvement during SY 1991-92. In your opinion, to what extent, if any, did each of the following factors hinder these schools' ability to succeed during local program improvement?

(CHECK ONE FOR EACH FACTOR)

FACTORS THAT MAY HAVE HINDERED SCHOOLS' ABILITY TO SUCCEED	Little or No Extent (1)	Some Extent (2)	Moderate Extent (3)	Great Extent (4)	Very Great Extent (5)	Don't know (6)	
1. Availability of funds for program improvement	27	11	6	0	0	1	(N=45)
2. Availability of technical assistance from SEA	27	9	6	0	2	1	(N=45)
3. Availability of technical assistance from TAC/RTAC	32	6	4	0	1	2	(N=45)
4. Attitudes of LEA staff toward program improvement	5	11	14	10	4	1	(N=45)
5. Attitudes of school staff toward program improvement	6	7	13	12	4	3	(N=45)
6. Coordination between Chapter 1 and the regular program	3	9	11	13	7	2	(N=45)
7. Quality of regular classroom instruction	3	6	15	10	3	8	(N=45)
8. Poverty among children served	10	13	9	7	3	2	(N=44)
9. Educational deprivation among children served	7	10	9	13	4	2	(N=45)
10. Having children in Chapter 1 who would have been better served in special education	15	8	5	9	0	8	(N=45)
11. Delivery models used for Chapter 1 instruction	12	7	14	9	2	1	(N=45)
12. Quality of Chapter 1 instructors	11	11	9	8	3	3	(N=45)
13. Time allowed by law to show improvement	15	13	8	7	1	1	(N=45)
14. Strategies selected to improve programs under local improvement plans	6	11	11	10	5	2	(N=45)
15. Other factor (PLEASE SPECIFY) _____ _____	0	0	2	10	4	0	(N=16)

16. Again, consider the schools in your state that will be in joint program improvement during SY 1991-92. In your opinion, to what extent, if any, will each of the following factors hinder these schools' ability to succeed during joint program improvement?

(CHECK ONE FOR EACH FACTOR)

FACTORS THAT MAY HINDER SCHOOLS' ABILITY TO SUCCEED	Little or No Extent (1)	Some Extent (2)	Moderate Extent (3)	Great Extent (4)	Very Great Extent (5)	Don't Know (6)	
1. Availability of funds for program improvement	27	11	2	2	0	2	(N=44)
2. Availability of technical assistance from SEA	24	11	4	2	1	2	(N=44)
3. Availability of technical assistance from TAC/RTAC	31	9	1	0	1	3	(N=45)
4. Attitudes of LEA staff toward program improvement	10	13	7	8	4	3	(N=45)
5. Attitudes of school staff toward program improvement	9	13	4	11	5	3	(N=45)
6. Coordination between Chapter 1 and the regular program	5	10	13	10	3	4	(N=45)
7. Quality of regular classroom instruction	2	10	13	8	3	9	(N=45)
8. Poverty among children served	14	13	7	6	2	3	(N=45)
9. Educational deprivation among children served	8	11	9	12	2	3	(N=45)
10. Having children in Chapter 1 who would be better served in special education	20	5	8	3	1	8	(N=45)
11. Delivery models used for Chapter 1 instruction	10	12	13	6	1	3	(N=45)
12. Quality of Chapter 1 instructors	12	13	10	3	3	4	(N=45)
13. Strategies selected to improve programs under joint improvement plans	13	9	8	5	3	7	(N=45)
14. Other factor (PLEASE SPECIFY) _____ _____	0	2	2	5	3	0	(N=12)

SEA ASSISTANCE TO SCHOOLS IN JOINT PROGRAM IMPROVEMENT

17. Consider the kinds of assistance your SEA will provide to schools in joint program improvement compared to schools in local program improvement during SY 1991-92.

Will your SEA provide any kinds of assistance to schools in joint program improvement that it will not provide to schools in local program improvement? (CHECK ONE) (N=50)

1. [40] Yes ---> **(GO TO QUESTION 18)**
2. [6] No
3. [1] Don't know **(GO TO QUESTION 19)**
4. [3] Not applicable - no schools will be in joint program improvement

18. Below, please briefly describe up to three kinds of assistance your SEA will provide to schools in joint program improvement that it will not provide to schools in local program improvement.

1. N=40
2. N=33
3. N=25

STATE STANDARDS FOR IDENTIFYING SCHOOLS

19. During SY 1990-91, what was the minimum state NCE standard used to identify schools for Chapter 1 program improvement? (CHECK ONE) (N=51)

1. [28] Greater than 0 NCEs
2. [15] 1 NCE or greater
3. [3] 2 NCEs or greater
4. [1] 3 NCEs or greater
5. [4] Other NCE standard (PLEASE SPECIFY)

_____

_____

_____

20. For the purpose of identifying schools for program improvement during SY 1990-91, did your SEA require the use of desired outcomes other than NCEs in grades 2-12? (CHECK ONE) (N=51)

1. [20] Yes, required
2. [31] No, not required

21. Consider a school that does not show enough of an NCE gain, but which does have other evidence of the effectiveness of its Chapter 1 program.

In your state, could such schools be exempted from local or joint program improvement? (CHECK ONE) (N=51)

1. [14] Yes, from both local and joint program improvement
2. [6] Yes, from local program improvement only
3. [0] Yes, from joint program improvement only
4. [31] No, not from local or joint program improvement

STATE VIEWS ON THE IDENTIFICATION PROCESS

22. In your opinion, how accurate or inaccurate is the process in your state for identifying schools that need Chapter 1 program improvement? (CHECK ONE) (N=51)

1. [1] Always accurate ---> **(GO TO PAGE 8, QUESTION 28)**
2. [15] Almost always accurate
3. [19] More often accurate than inaccurate
4. [14] As often accurate as inaccurate ----> **(GO TO QUESTION 23)**
5. [2] More often inaccurate than accurate
6. [0] Almost always inaccurate
7. [0] Always inaccurate

23. In your opinion, to what extent, if at all, is each of the following a reason for inaccuracies in your state's identification process?

(CHECK ONE FOR EACH REASON)

REASONS FOR INACCURACY	Little or No Extent (1)	Some Extent (2)	Moderate Extent (3)	Great Extent (4)	Very Great Extent (5)	
1. School identification process is based on only one year of data	6	13	9	13	8	(N=49)
2. Norm-referenced tests do not indicate Chapter 1 program effectiveness	3	16	13	11	6	(N=49)
3. Schools are identified if they fail to meet any single outcome (for example, NCEs or another desired outcome)	15	9	8	9	8	(N=49)
4. The NCE scores of a few students can put a school in or out of program improvement	2	11	10	12	13	(N=48)
5. Other reason (PLEASE SPECIFY) _____ _____	0	2	3	4	4	(N=13)

24. Consider the process for determining whether or not schools should be in the local phase of program improvement during SY 1991-92.

    Were any schools identified for the local phase that, in your opinion, do not need Chapter 1 program improvement? (CHECK ONE) (N=48)

    1. [19] Yes
    2. [19] No
    3. [10] Don't know

25. Again, consider the process for determining whether or not schools should be in the local phase of program improvement during SY 1991-92.

    Were any schools not identified for the local phase that, in your opinion, do need Chapter 1 program improvement? (CHECK ONE) (N=49)

    1. [24] Yes
    2. [8] No
    3. [17] Don't know

26. Now, consider the process for determining whether or not schools should be in the joint phase of program improvement during SY 1991-92.

    Were any schools identified for the joint phase that, in your opinion, do not need Chapter 1 program improvement? (CHECK ONE) (N=49)

    1. [10] Yes
    2. [30] No
    3. [6] Don't know
    4. [3] Not applicable-- no schools identified to be in joint improvement

27. Again, consider the process for determining whether or not schools should be in the joint phase of program improvement during SY 1991-92.

    Were any schools not identified for the joint phase that, in your opinion, do need Chapter 1 program improvement? (CHECK ONE) (N=50)

    1. [14] Yes
    2. [18] No
    3. [14] Don't know
    4. [4] Not applicable-- no schools identified to be in joint program improvement

REQUEST FOR DOCUMENTS

28. As part of our study, we also plan to survey LEA Chapter 1 coordinators and principals of schools involved in the joint program improvement process. To help us with our future data collection efforts, please enclose:

    1. A list of all LEAs in your state with one or more schools in joint program improvement, including:

       Name of district
       Name of Chapter 1 Coordinator
       Address
       Phone number
       Number of joint plan schools

    2. A list of all schools in your state in joint program improvement, including:

       Name of school
       Name of principal
       Address
       Name of LEA

    3. A copy of your SY 1990-91 SEA plan for implementing the Chapter 1 program improvement provision.

COMMENTS

29. Below, please briefly discuss any concerns or recommendations you have about Chapter 1 program improvement. (N=51)

36 states provided comments

30. Please provide below any comments you have about this questionnaire, or any of the questions. (N=51)

16 states provided comments

LMM/HRD/12-3-91

Results of Survey of District Chapter 1 Coordinators

U.S. GENERAL ACCOUNTING OFFICE
JOINT PROGRAM IMPROVEMENT STUDY
Survey of School District Chapter 1 Coordinators

INTRODUCTION

The U.S. General Accounting Office, an agency of the Congress, is conducting a study of state and local implementation of the Chapter 1 program improvement provision. As part of our study, we are sending this questionnaire to all school districts in the nation that have one or more schools in the joint phase of program improvement during school year (SY) 1991-92.

INSTRUCTIONS

This questionnaire asks about schools' experiences in both the local and joint phases of Chapter 1 program improvement. These two phases are defined as follows:

-- **Local phase of program improvement**: When a Chapter 1 school is initially identified as needing improvement, it enters the first, or local, phase of program improvement. During the local phase, the local education agency (LEA) is responsible for developing and implementing a local program improvement plan in coordination with the school. In some places, the first school year is spent developing a local plan which is implemented the following year; in other places, implementation begins during the first year.

-- **Joint phase of program improvement**. A school enters the second, or joint, phase of program improvement if it is identified as still needing improvement after its local plan has been in effect for one full school year. During the joint phase, the LEA and the state education agency (SEA) must together develop and implement a joint program improvement plan in coordination with the school. Here again, in some places, one school year is spent developing a joint plan which is implemented the following year; in other places, implementation begins during the first year.

This questionnaire should be answered by you or the staff member you designate as most knowledgeable about Chapter 1 program improvement activities in your district.

Please complete and return this questionnaire in the enclosed business reply envelope within 10 days of receipt to:

Tim Silva
U.S. General Accounting Office
NGB/Education & Employment Issues
441 G Street, NW
Washington, DC 20548

If you have any questions, please call Tim Silva at (202) 512-7041, or Richard Wenning at (202) 512-7072.

Please provide the name of the primary person responsible for completing this questionnaire so that we may call and clarify information, if necessary.

Name: _____

Title: _____

Office Phone: _____

School District: _____

State: _____

1. Are any public or private schools in your school district currently in joint program improvement? (CHECK ONE) (N=478)

* 1. [83] Yes, public school(s) only

2. [0] Yes, private school(s) only

3. [5] Yes, both public and private schools

4. [13] No ------> **(STOP! PLEASE RETURN THIS QUESTIONNAIRE. THANKS FOR YOUR HELP!)**

* Data presented using percentages, rounded to nearest whole number; totals may not sum to 100 due to rounding.

SEA TECHNICAL ASSISTANCE FOR LOCAL PROGRAM IMPROVEMENT

2. Consider the school(s) that are currently in the joint phase of program improvement. Did your district receive any technical assistance from the state education agency (SEA) when these schools were in the local phase? (CHECK ONE) (N=416)

1. [86] Yes **(GO TO QUESTION 3)**

2. [12] No **(GO TO QUESTION 5)**

3. [3] Don't know **(GO TO QUESTION 6)**

3. How much, if any, of each of the following types of technical assistance did your district receive from the SEA when these schools were in the local phase?

(CHECK ONE FOR EACH TYPE OF TECHNICAL ASSISTANCE)

TYPES OF SEA TECHNICAL ASSISTANCE	Very Great Amount (1)	Great Amount (2)	Moderate Amount (3)	Small Amount (4)	Very Small Amount (5)	No Amount (6)	
1. Explained the requirements of the local phase, in general	18	46	29	5	2	1	(N=345)
2. Provided general information about improving schools during the local phase	14	40	35	7	3	1	(N=346)
3. Provided specific assistance on improving individual schools during the local phase	11	23	33	16	10	8	(N=342)
4. Other (SPECIFY) _____	0	62	25	12	0	0	(N=8)

4. Overall, how satisfied or dissatisfied were you with the types of technical assistance your district received from the SEA when these schools were in the local phase? (CHECK ONE) (N=351)

1. [32] Very satisfied

2. [50] Generally satisfied

3. [13] About as satisfied as dissatisfied

4. [4] Generally dissatisfied

5. [0] Very dissatisfied

5. Overall, how satisfied or dissatisfied were you with the amount of technical assistance your district received from the SEA when these schools were in the local phase? (CHECK ONE) (N=393)

1. [28] Very satisfied

2. [50] Generally satisfied

3. [15] About as satisfied as dissatisfied

4. [5] Generally dissatisfied

5. [2] Very dissatisfied

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LOCAL PROGRAM IMPROVEMENT ACTIVITIES

6. Consider the school(s) that are now in the joint phase of program improvement. How much influence, if any, did each of the following sources have in determining what needed improvement in these schools during the local phase?

(CHECK ONE FOR EACH SOURCE)

SOURCES	Very Great Influence (1)	Great Influence (2)	Moderate Influence (3)	Some Influence (4)	Little or No Influence (5)	
1. Staff from these schools	38	40	15	5	2	(N=410)
2. Parents of students in these schools	5	19	40	25	10	(N=411)
3. Staff from other schools or districts	2	4	12	23	59	(N=402)
4. LEA staff	26	46	20	6	2	(N=409)
5. SEA staff	7	28	29	21	14	(N=406)
6. Chapter 1 Technical Assistance Center (TAC) or Rural-TAC staff	4	9	17	21	49	(N=397)
7. Other sources (SPECIFY) _____ _____	31	33	11	6	19	(N=36)

7. Again, consider the school(s) that are now in the joint phase of program improvement. How much influence, if any, did each of the following factors have on the selection of improvement strategies for these schools during the local phase?

(CHECK ONE FOR EACH FACTOR)

FACTORS	Very Great Influence (1)	Great Influence (2)	Moderate Influence (3)	Some Influence (4)	Little or No Influence (5)	
1. Staff from these schools	38	42	12	6	2	(N=411)
2. Parents of students in these schools	6	22	35	25	12	(N=410)
3. Staff from other schools or districts	1	5	14	21	59	(N=401)
4. LEA staff	26	45	22	5	2	(N=408)
5. SEA staff	8	26	30	21	14	(N=407)
6. Chapter 1 TAC or R-TAC staff	4	9	16	22	49	(N=394)
7. Literature on effective practices in schools	15	33	30	17	5	(N=406)
8. The need to show aggregate gains on norm-referenced tests	40	38	16	4	2	(N=409)
9. Other factors (SPECIFY) _____ _____	46	27	8	0	19	(N=26)

DISTRICT VIEWS OF LOCAL PROGRAM IMPROVEMENT EFFORTS

8. Consider the school(s) in your district that are currently in the joint phase of program improvement. In your opinion, to what extent, if any, did each of the following factors hinder these schools' ability to succeed during the local phase of program improvement?

(CHECK ONE FOR EACH FACTOR)

FACTORS THAT MAY HAVE HINDERED SCHOOLS' ABILITY TO SUCCEED	Very Great Extent (1)	Great Extent (2)	Moderate Extent (3)	Some Extent (4)	Little or No Extent (5)	Don't Know (6)	
1. Availability of technical assistance from SEA	1	3	8	13	70	5	(N=406)
2. Availability of funds for program improvement	3	12	13	16	53	3	(N=409)
3. Attitudes of SEA staff toward program improvement	2	2	5	5	82	5	(N=407)
4. Attitudes of school staff toward program improvement	4	10	20	30	34	2	(N=410)
5. Coordination between Chapter 1 and the regular program	1	10	21	23	43	1	(N=410)
6. Quality of regular classroom instruction	5	11	21	27	32	3	(N=408)
7. Poverty among children served	14	17	21	22	24	2	(N=408)
8. Educational deprivation among children served	17	26	17	22	16	2	(N=409)
9. Mobility among children served	12	18	18	19	31	2	(N=409)
10. Degree of parental involvement	14	26	24	22	13	1	(N=412)
11. Having children in Chapter 1 who would have been better served in special education	10	8	14	22	44	2	(N=409)
12. Location of Chapter 1 instruction (such as pull-out, in-class, stand-alone, or others)	1	6	14	19	59	2	(N=409)
13. Strategies used to improve programs in local phase	2	7	19	27	42	3	(N=408)
14. Quality of Chapter 1 teachers	4	6	11	19	58	2	(N=400)
15. Quality of Chapter 1 aides (para-professionals)	2	6	7	19	63	4	(N=382)
16. Time allowed by law to show improvement	11	19	20	19	27	4	(N=409)
17. Other factors (SPECIFY) _____	52	30	10	2	3	3	(N=61)

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SEA TECHNICAL ASSISTANCE FOR JOINT PROGRAM IMPROVEMENT

9. Thus far, has your district received any technical assistance from the SEA concerning the joint phase of program improvement? (CHECK ONE) (N=408)

1. [91] Yes **(GO TO QUESTION 10)**
2. [8] No **(GO TO QUESTION 12)**
3. [2] Don't know **(GO TO QUESTION 13)**

10. How much, if any, of each of the following types of technical assistance has your district received from the SEA concerning the joint phase of program improvement?

(CHECK ONE FOR EACH TYPE OF TECHNICAL ASSISTANCE)

TYPES OF SEA TECHNICAL ASSISTANCE	Very Great Amount (1)	Great Amount (2)	Moderate Amount (3)	Small Amount (4)	Very Small Amount (5)	No Amount (6)	
1. Explained the requirements of the joint phase, in general	29	42	23	4	1	0	(N=367)
2. Provided general information about improving schools during the joint phase	24	41	27	7	2	0	(N=365)
3. Provided specific assistance on improving individual schools during the joint phase	18	32	28	10	9	2	(N=366)
4. Other (SPECIFY) _____	31	38	31	0	0	0	(N=13)

11. Overall, how satisfied or dissatisfied are you with the types of technical assistance your district has received from the SEA concerning the joint phase? (CHECK ONE) (N=368)

1. [38] Very satisfied
2. [43] Generally satisfied
3. [16] About as satisfied as dissatisfied
4. [3] Generally dissatisfied
5. [1] Very dissatisfied

12. Overall, how satisfied or dissatisfied are you with the amount of technical assistance your district has received from the SEA concerning the joint phase? (CHECK ONE) (N=394)

1. [32] Very satisfied
2. [41] Generally satisfied
3. [18] About as satisfied as dissatisfied
4. [6] Generally dissatisfied
5. [2] Very dissatisfied

JOINT PROGRAM IMPROVEMENT ACTIVITIES

13. In general, what is the current status of your district's joint program improvement plans? (CHECK ONE) (N=403)

1. [6] Joint plan development not yet begun **(GO TO PAGE 9, QUESTION 16)**
2. [16] Joint plans being developed, but not completed
3. [11] Joint plans completed, but not implemented
4. [38] Joint plans partially implemented
5. [30] Joint plans fully implemented

14. Thus far, how much influence, if any, have each of the following sources had in determining what needs improvement in the schools now in the joint phase?

(CHECK ONE FOR EACH SOURCE)

SOURCES	Very Great Influence (1)	Great Influence (2)	Moderate Influence (3)	Some Influence (4)	Little or No Influence (5)	
1. Staff from these schools	40	38	16	4	2	(N=380)
2. Parents of students in these schools	5	18	41	28	8	(N=380)
3. Staff from other schools or districts	2	4	12	24	58	(N=376)
4. LEA staff	26	46	20	7	2	(N=376)
5. SEA staff	9	31	30	22	9	(N=379)
6. Chapter 1 TAC or R-TAC staff	3	8	16	22	51	(N=358)
7. Other sources (SPECIFY) _____ _____	47	13	17	7	17	(N=30)

15. Thus far, how much influence, if any, have each of the following factors had on the selection of improvement strategies for the schools now in the joint phase?

(CHECK ONE FOR EACH FACTOR)

FACTORS	Very Great Influence (1)	Great Influence (2)	Moderate Influence (3)	Some Influence (4)	Little or No Influence (5)	
1. Staff from these schools	41	38	14	4	3	(N=383)
2. Parents of students in these schools	6	18	36	31	9	(N=383)
3. Staff from other schools or districts	1	6	11	26	57	(N=377)
4. LEA staff	27	45	19	7	2	(N=380)
5. SEA staff	9	31	29	22	9	(N=381)
6. Chapter 1 TAC or R-TAC staff	4	10	16	21	49	(N=362)
7. Literature on effective practices in schools	14	35	32	15	3	(N=378)
8. The need to show aggregate gains on norm-referenced tests	43	37	15	4	1	(N=383)
9. Other factors (SPECIFY) _____ _____	52	29	10	0	10	(N=21)

STANDARDS FOR IDENTIFYING SCHOOLS

16. Last year (SY 1990-91), what was the NCE standard used in your district to identify schools to be in program improvement? (CHECK ONE) (N=413)

1. [25] 0 NCEs or less
2. [22] Less than 1 NCE
3. [27] Less than 2 NCEs
4. [20] Less than 3 NCEs
5. [3] Less than 4 NCEs
6. [3] Other NCE standard (PLEASE SPECIFY)

_____

_____

17. Last year (SY 1990-91), for the purpose of identifying schools for program improvement, did your district require the use of desired outcomes in addition to the average NCE gains or grades 2-12? (CHECK ONE) (N=414)

1. [59] Yes, required **(GO TO QUESTION 18)**
2. [41] No, not required **(GO TO QUESTION 19)**

18. Last year (SY 1990-91), what types of desired outcomes, other than average NCE gains, were established for grades 2-12 to identify schools for program improvement? (CHECK ALL THAT APPLY) (N=239)

1. [29] Attendance rates
2. [14] Samples or portfolios of student work
3. [36] Student performance on criterion-referenced test
4. [52] Student performance on norm-referenced test
5. [11] Length of time students remain in Chapter 1 program
6. [50] Student grades
7. [29] Retentions in grade
8. [9] Dropout rates
9. [5] Graduation rates
10. [31] Other (PLEASE SPECIFY)

_____

_____

19. Consider a school that does not show enough of an NCE gain, but does have other evidence of the effectiveness of its Chapter 1 program.

In your district, can such schools be exempted from local or joint program improvement? (CHECK ONE) (N=409)

1. [7] Yes, from <u>both</u> local and joint program improvement
2. [2] Yes, from <u>local</u> program improvement <u>only</u>
3. [2] Yes, from <u>joint</u> program improvement <u>only</u>
4. [75] No, not from local or joint program improvement
5. [15] Don't know

DISTRICT VIEWS ON THE IDENTIFICATION PROCESS

20. In your opinion, how accurate or inaccurate is the process in your district for identifying schools that you believe need Chapter 1 program improvement? (CHECK ONE) (N=404)

1. [17] Always accurate ---> **(GO TO PAGE 12, QUESTION 26)**
2. [19] Almost always accurate
3. [25] More often accurate than inaccurate
4. [23] As often accurate as inaccurate ----> **(GO TO QUESTION 21)**
5. [14] More often inaccurate than accurate
6. [2] Almost always inaccurate
7. [1] Always inaccurate

21. In your opinion, to what extent, if at all, is each of the following a reason for inaccuracies in your district's identification process?

(CHECK ONE FOR EACH REASON)

REASONS FOR INACCURACY	Very Great Extent (1)	Great Extent (2)	Moderate Extent (3)	Some Extent (4)	Little or No Extent (5)	
1. School identification process is based on only one year of data	26	31	15	16	13	(N=322)
2. Norm-referenced tests do not indicate Chapter 1 program effectiveness	38	31	15	10	6	(N=327)
3. Schools are identified if they fail to meet the NCE standard, regardless of other evidence of their effectiveness	49	30	12	6	3	(N=331)
4. The NCE scores of a few students can put a school in or out of program improvement	60	25	9	5	1	(N=336)
5. Other reason (PLEASE SPECIFY) _____ _____	80	9	9	3	0	(N=35)

22. Consider the process for determining whether or not schools needed to be in the local phase of program improvement during SY 1991-92.

Were any schools in your district identified for the local phase that, in your opinion, do not need to be in Chapter 1 program improvement? (CHECK ONE) (N=339)

1. [46] Yes --> About how many? Median: 2
2. [44] No
3. [7] Don't know
4. [3] Not applicable - no schools assessed for local phase

23. Again, consider the process for determining whether or not schools need to be in the local phase of program improvement during SY 1991-92.

Were any schools in your district not identified for the local phase that, in your opinion, do need to be in Chapter 1 program improvement? (CHECK ONE) (N=339)

1. [10] Yes --> About how many? Median: 1
2. [80] No
3. [6] Don't know
4. [3] Not applicable - no schools assessed for local phase

24. Now, consider the process for determining whether or not schools need to be in the joint phase of program improvement during SY 1991-92.

Were any schools in your district identified for the joint phase that, in your opinion, do not need to be in Chapter 1 program improvement? (CHECK ONE) (N=343)

1. [44] Yes --> About how many? Median: 1
2. [50] No
3. [6] Don't know

25. Again, consider the process for determining whether or not schools need to be in the joint phase of program improvement during SY 1991-92.

Were any schools in your district not identified for the joint phase that, in your opinion, do need to be in Chapter 1 program improvement? (CHECK ONE) (N=344)

1. [7] Yes --> About how many? Median: 1
2. [87] No
3. [6] Don't know

DISTRICT AND SCHOOL BUILDING INFORMATION

26. During SY 1990-91 and SY 1991-92, how much federal Chapter 1 funding, if any, was your district allocated from each of the following sources? (ENTER AMOUNT; IF NONE, ENTER '0')

CHAPTER 1 ALLOCATION	SY 1990-91	SY 1991-92
1. Basic grant	Median: $ 476,144 (N=348)	Median: $ 568,248 (N=363)
2. Concentration grant	Median: $ 44,226 (N=268)	Median: $ 65,724 (N=284)
3. Program improvement (sec. 1405) funds	Median: $ 1,152 (N=304)	Median: $ 1,500 (N=317)

27. How many public and private schools in your district currently provide Chapter 1 services, and how many are in the local or joint phases of program improvement? (ENTER NUMBERS; IF NONE, ENTER '0')

	Public Schools	Private Schools	TOTAL
1. Number of schools currently providing Chapter 1 services	Median: 5 (N=402)	Median: 0 (N=389)	Median: 5 (N=388)
2. Number of schools currently in local program improvement	Median: 1.5 (N=392)	Median: 0 (N=381)	Median: 1.5 (N=378)
3. Number of schools currently in joint program improvement	Median: 1 (N=399)	Median: 0 (N=389)	Median: 1 (N=389)

28. Are any of the schools that are currently in joint program improvement officially designated as Chapter 1 Schoolwide Projects? (CHECK ONE) (N=410)

1. [19] Yes ---> How many? Median: 1
2. [78] No
3. [2] Don't know

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YOUR COMMENTS

29. Below, please briefly discuss any concerns or recommendations you have about Chapter 1 program improvement. (N=417)

61% provided comments

30. Please provide below any comments you have about this questionnaire, or any of the questions. (N=417)

21% provided comments

THANKS FOR YOUR HELP!

HRD/LMM4/3/92

Results of Survey of Chapter 1 School Principals

U.S. GENERAL ACCOUNTING OFFICE
JOINT PROGRAM IMPROVEMENT STUDY
Survey of Chapter 1 School Principals

INTRODUCTION

The U.S. General Accounting Office, an agency of the Congress, is conducting a study of state and local implementation of the Chapter 1 program improvement provision. As part of our study, we are sending this questionnaire to all schools in the nation that, according to their state Chapter 1 coordinators, are in the joint phase of program improvement during school year (SY) 1991-92.

INSTRUCTIONS

This questionnaire asks about your school's experiences with both the local and joint phases of Chapter 1 program improvement. These two phases are defined as follows:

-- **Local phase of program improvement**: When a Chapter 1 school is initially identified as needing improvement, it enters the first, or local, phase of program improvement. During the local phase, the local education agency (LEA) is responsible for developing and implementing a local program improvement plan in coordination with the school. In some places, the first school year is spent developing a local plan which is implemented the following year; in other places, implementation begins during the first year.

-- **Joint phase of program improvement**: A school enters the second, or joint, phase of program improvement if it is identified as still needing improvement after its local plan has been in effect for one full school year. During the joint phase, the LEA and the state education agency (SEA) must together develop and implement a joint program improvement plan in coordination with the school. Here again, in some places, one school year is spent developing a joint plan which is implemented the following year; in other places, implementation begins during the first year.

This questionnaire should be answered by you or the staff member you designate as most knowledgeable about Chapter 1 program improvement activities in your school. You may find it helpful to consult with other staff members when completing this survey.

Please complete and return this questionnaire in the enclosed business reply envelope within 10 days of receipt to:

Tim Silva
U.S. General Accounting Office
NGB/Education & Employment Issues
441 G Street, NW
Washington, DC 20548

If you have any questions, please call Tim Silva at (202) 512-7041, or Richard Wenning at (202) 512-7072.

Please provide the name of the primary person responsible for completing this questionnaire so that we may call and clarify information, if necessary.

Name: _____

Title: _____

Office Phone: _____

School: _____

School District: _____

State: _____

1. Has your school been identified to be in the joint phase of program improvement during school year (SY) 1991-92? (CHECK ONE)

(N=1,199)

* 1. [77] Yes, identified **(GO TO QUESTION 2)**

2. [1] Yes, identified but later exempted

3. [18] No, not identified

4. [4] Don't know

(STOP! PLEASE RETURN THIS QUESTIONNAIRE. THANKS FOR YOUR HELP!)

* Data presented using percentages, rounded to nearest whole number; totals may not sum to 100 due to rounding.

SEA TECHNICAL ASSISTANCE DURING LOCAL PROGRAM IMPROVEMENT

2. Did your school receive any technical assistance directly from the state education agency (SEA) when your school was in the local phase of program improvement? (CHECK ONE) (N=907)

   1. [69] Yes **(GO TO QUESTION 3)**

   2. [23] No **(GO TO QUESTION 5)**

   3. [8] Don't know **(GO TO QUESTION 6)**

3. How much, if any, of each of the following types of technical assistance did your school receive directly from the SEA when it was in the local phase of program improvement?

(CHECK ONE FOR EACH TYPE OF TECHNICAL ASSISTANCE)

TYPES OF SEA TECHNICAL ASSISTANCE	Very Great Amount (1)	Great Amount (2)	Moderate Amount (3)	Small Amount (4)	Very Small Amount (5)	No Amount (6)	
1. Explained the requirements of the local phase, in general	13	34	38	10	5	1	(N=616)
2. Provided general information about improving schools during the local phase	12	32	39	9	7	2	(N=616)
3. Provided specific assistance on improving your school during the local phase	10	22	33	16	8	12	(N=609)
4. Other (SPECIFY) _____	25	20	35	5	5	10	(N=20)

4. Overall, how satisfied or dissatisfied were you with the types of technical assistance your school received directly from the SEA when it was in the local phase? (CHECK ONE) (N=617)

   1. [23] Very satisfied

   2. [47] Generally satisfied

   3. [23] About as satisfied as dissatisfied

   4. [6] Generally dissatisfied

   5. [1] Very dissatisfied

5. Overall, how satisfied or dissatisfied were you with the amount of technical assistance your school received directly from the SEA when it was in the local phase? (CHECK ONE) (N=775)

   1. [17] Very satisfied

   2. [42] Generally satisfied

   3. [27] About as satisfied as dissatisfied

   4. [9] Generally dissatisfied

   5. [5] Very dissatisfied

LOCAL PROGRAM IMPROVEMENT STRATEGIES

6. Please indicate whether or not each of the following strategies was part of your school's local program improvement effort?

STRATEGIES	(CHECK ONE FOR EACH STRATEGY) Yes (1)	No (2)	Don't Know (3)	
1. Adopting a new instructional approach (such as, cooperative learning) for Chapter 1	66	32	2	(N=899)
2. Adopting a new instructional approach (such as, cooperative learning) for regular program	56	41	2	(N=889)
3. Changing the curriculum taught to Chapter 1 students	47	52	2	(N=885)
4. Changing the grade levels served in Chapter 1 program	24	75	1	(N=892)
5. Changing the location of Chapter 1 services (such as, from pull-out to in-class or other location)	42	57	1	(N=900)
6. Changing the student selection criteria for Chapter 1 program	20	78	2	(N 897)
7. Adding Chapter 1 services before or after school hours (extended day)	21	78	1	(N=904)
8. Adding Chapter 1 services during the summer	25	73	2	(N=899)
9. Increasing the number of Chapter 1 teachers	24	74	2	(N=893)
10. Increasing the number of Chapter 1 aides (para-professionals)	26	73	1	(N=884)
11. Increasing parental involvement	86	12	1	(N=899)
12. Improving coordination between Chapter 1 and the regular program	92	7	1	(N=902)
13. Instructing Chapter 1 students on test-taking skills	75	23	2	(N=893)
14. Other strategies (SPECIFY) _____ _____	95	1	4	(N=157)

7. During the local phase, which of the following indicators of Chapter 1 program effectiveness were your improvement strategies intended to improve? (CHECK ALL THAT APPLY)
(N=899)

1. [48] Attendance rates
2. [28] Samples or portfolios of student work
3. [70] Student performance on criterion-referenced tests
4. [94] Student performance on norm-referenced tests
5. [30] Length of time students remain in Chapter 1
6. [72] Student grades
7. [42] Retentions in grade
8. [23] Dropout rates
9. [12] Graduation rates
10. [12] Other indicators (SPECIFY)

_____

_____

8. In your opinion, of all the indicators of program effectiveness that you checked in response to the previous question, which were the first, second, and third most important for your school to improve during the local phase?
(N=878)

(ENTER ONE ITEM NUMBER FROM QUESTION 7 FOR EACH IMPORTANCE LEVEL BELOW)

1. #4 First most important
2. #6 Second most important
3. #3 Third most important

SCHOOL VIEWS OF LOCAL PROGRAM IMPROVEMENT EFFORTS

9. Consider your school's experience in the local phase of program improvement. In your opinion, to what extent, if any, did each of the following factors hinder your school's ability to succeed during the local phase?

(CHECK ONE FOR EACH FACTOR)

FACTORS THAT MAY HAVE HINDERED SCHOOL'S ABILITY TO SUCCEED	Very Great Extent (1)	Great Extent (2)	Moderate Extent (3)	Some Extent (4)	Little or No Extent (5)	Don't Know (6)	
1. Availability of technical assistance from SEA	2	5	11	14	59	8	(N=869)
2. Availability of funds for program improvement	8	14	16	16	43	4	(N=884)
3. Attitudes of SEA staff toward program improvement	2	2	5	7	68	18	(N=871)
4. Attitudes of school staff toward program improvement	2	7	14	24	51	2	(N=884)
5. Coordination between Chapter 1 and the regular program	2	7	15	23	52	0	(N=877)
6. Quality of regular classroom instruction	3	5	12	25	53	2	(N=875)
7. Poverty among children served	17	22	18	20	22	2	(N=884)
8. Educational deprivation among children served	22	25	18	18	15	2	(N=882)
9. Mobility among children served	14	16	18	20	30	2	(N=881)
10. Degree of parental involvement	21	28	25	17	7	0	(N=894)
11. Having children in Chapter 1 who would have been better served in special education	6	9	16	22	43	4	(N=877)
12. Location of Chapter 1 instruction (such as pull-out, in-class, stand-alone, or others)	2	7	11	18	61	2	(N=876)
13. Strategies used to improve programs in local phase	2	5	14	24	54	2	(N=864)
14. Quality of Chapter 1 teachers	3	4	6	15	68	4	(N=845)
15. Quality of Chapter 1 aides (para-professionals)	2	3	5	14	69	6	(N=804)
16. Time allowed by law to show improvement	13	16	18	19	31	4	(N=880)
17. Other factors (SPECIFY) _____	55	28	5	1	5	4	(N=92)

IDENTIFICATION FOR JOINT PHASE OF PROGRAM IMPROVEMENT

In answering the following questions, please recall that the joint phase of program improvement involves both the local and state education agencies (LEA and SEA).

10. On what basis was your school identified to be in joint program improvement during SY 1991-92? (CHECK ONE) (N=902)

    1. [68] School identified only because of insufficient NCE gains

    2. [5] School identified only because of lack of substantial progress toward other desired outcomes

    3. [23] School identified because of both insufficient NCE gains and lack of substantial progress toward other desired outcomes

    4. [4] Don't know

11. Is SY 1991-92 your school's first or second year in the joint phase of program improvement? (CHECK ONE) (N=895)

    1. [76] First year in joint phase

    2. [24] Second year in joint phase

12. Now, consider the process that was used to determine that your school is in need of joint program improvement during SY 1991-92.

    In your opinion, was your school accurately identified as in need of Chapter 1 program improvement during SY 1991-92? (CHECK ONE) (N=900)

    1. [63] Yes --> **(GO TO QUESTION 14)**

    2. [30] No --> **(GO TO QUESTION 13)**

    3. [7] Don't know --> **(GO TO QUESTION 14)**

13. In your opinion, which of the following, if any, are reasons that your school was inaccurately identified for the joint phase of program improvement? (CHECK ALL THAT APPLY) (N=265)

    1. [63] Norm-referenced tests do not indicate the effectiveness of our Chapter 1 program

    2. [57] Our school was identified because we failed to meet the NCE standard, regardless of other evidence of our effectiveness

    3. [54] The NCE scores of a few students put our school in joint program improvement

    4. [22] Other reason (PLEASE SPECIFY):

       _____

       _____

SEA TECHNICAL ASSISTANCE DURING JOINT PROGRAM IMPROVEMENT

14. Thus far, has your school received any technical assistance directly from the SEA concerning the joint phase of program improvement? (CHECK ONE) (N=903)

    1. [73] Yes **(GO TO QUESTION 15)**

    2. [22] No **(GO TO QUESTION 17)**

    3. [5] Don't know **(GO TO QUESTION 18)**

15. Thus far, how much, if any, of each of the following types of technical assistance has your school received directly from the SEA concerning the joint phase of program improvement?

(CHECK ONE FOR EACH TYPE OF TECHNICAL ASSISTANCE)

TYPES OF SEA TECHNICAL ASSISTANCE	Very Great Amount (1)	Great Amount (2)	Moderate Amount (3)	Small Amount (4)	Very Small Amount (5)	No Amount (6)	
1. Explained the requirements of the joint phase, in general	18	37	29	7	8	1	(N=664)
2. Provided general information about improving schools during the joint phase	15	34	33	7	6	5	(N=664)
3. Provided specific assistance on improving your school during the joint phase	12	28	28	13	8	10	(N=664)
4. Other (SPECIFY) _____	24	43	14	0	10	10	(N=21)

16. Overall, how satisfied or dissatisfied are you with the types of technical assistance your school has received directly from the SEA concerning the joint phase? (CHECK ONE) (N=664)

1. [23] Very satisfied
2. [47] Generally satisfied
3. [22] About as satisfied as dissatisfied
4. [8] Generally dissatisfied
5. [0] Very dissatisfied

17. Overall, how satisfied or dissatisfied are you with the amount of technical assistance your school has received concerning the joint phase? (CHECK ONE) (N=844)

1. [17] Very satisfied
2. [39] Generally satisfied
3. [27] About as satisfied as dissatisfied
4. [11] Generally dissatisfied
5. [5] Very dissatisfied

STATUS OF JOINT PROGRAM IMPROVEMENT ACTIVITIES

18. About when did (will) your school begin fully implementing its joint program improvement plan? (ENTER MONTH AND YEAR) (N=896)

_____/_____ [88]
MONTH YEAR

[12] Don't know

19. What is the current status of your school's improvement plan for the joint phase? (CHECK ONE) (N=889)

1. [4] Joint plan development not yet begun **(GO TO PAGE 9, QUESTION 24)**
2. [12] Joint plan being developed, but not completed
3. [11] Joint plan completed, but not implemented
4. [37] Joint plan partially implemented
5. [36] Joint plan fully implemented

JOINT PROGRAM IMPROVEMENT STRATEGIES

20. Please indicate whether or not each of the following strategies are (will be) part of your school's joint program improvement effort?

STRATEGIES	(CHECK ONE FOR EACH STRATEGY) Yes (1)	No (2)	Don't Know (3)	
1. Adopting a new instructional approach (such as, cooperative learning) for Chapter 1	73	23	4	(N=857)
2. Adopting a new instructional approach (such as, cooperative learning) for regular program	65	30	5	(N=854)
3. Changing the curriculum taught to Chapter 1 students	45	52	3	(N=844)
4. Changing the grade levels served in Chapter 1 program	25	72	3	(N=839)
5. Changing the location of Chapter 1 services (such as, from pull-out to in-class or other location)	39	58	3	(N=852)
6. Changing the student selection criteria for Chapter 1 program	23	73	4	(N=851)
7. Adding Chapter 1 services before or after school hours (extended day)	24	72	5	(N=854)
8. Adding Chapter 1 services during the summer	28	67	5	(N=851)
9. Increasing the number of Chapter 1 teachers	27	65	8	(N=849)
10. Increasing the number of Chapter 1 aides (para-professionals)	25	69	6	(N=834)
11. Increasing parental involvement	94	4	2	(N=859)
12. Improving coordination between Chapter 1 and the regular program	93	6	1	(N=857)
13. Instructing Chapter 1 students on test-taking skills	83	15	2	(N=855)
14. Other strategies (SPECIFY) _____ _____	98	0	2	(N=110)

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21. Which of the following indicators of Chapter 1 program effectiveness are your improvement strategies during the joint phase intended to improve? (CHECK ALL THAT APPLY) (N=862)

    1. [51] Attendance rates
    2. [39] Samples or portfolios of student work
    3. [71] Student performance on criterion-referenced tests
    4. [94] Student performance on norm-referenced tests
    5. [35] Length of time students remain in Chapter 1
    6. [78] Student grades
    7. [50] Retentions in grade
    8. [24] Dropout rates
    9. [14] Graduation rates
    10. [14] Other indicators (SPECIFY)

    _____

    _____

22. In your opinion, of all the indicators of program effectiveness that you checked in response to the previous question, which are (will be) the first, second, and third most important for your school to improve during the joint phase? (N=838)

    (ENTER ONE ITEM NUMBER FROM QUESTION 21 FOR EACH IMPORTANCE LEVEL BELOW)

    1. #4 First most important
    2. #6 Second most important
    3. #3 Third most important

23. Overall, how similar, if at all, are the improvement strategies that your school is adopting (or will adopt) in the joint phase to those adopted in the local phase? (CHECK ONE) (N=850)

    1. [17] Exactly the same
    2. [50] Very similar
    3. [19] Moderately similar
    4. [10] Somewhat similar
    5. [4] Not at all similar

INFORMATION ABOUT YOUR SCHOOL

24. Is this a public or private school? (CHECK ONE) (N=909)

    1. [98] Public
    2. [2] Private

25. How many students are currently enrolled in your school? (ENTER NUMBER) (N=893)

    Median: 474
    Range: 15 to 2,900 Students in school

26. How many students in your school are currently receiving Chapter 1 services? (ENTER NUMBER) (N=866)

    Median: 128
    Range: 11 to 1,342 Students in Chapter 1

27. How many students in your school are currently in the free lunch or reduced-price lunch program? (ENTER NUMBER; IF NONE, ENTER '0')

    Median: 240
    Range: 0 to 1,695 Students in free lunch program (N=833)

    Median: 29
    Range: 0 to 590 Students in reduced-price lunch program (N=794)

28. About what percentage of your students, if any, are in each of the following racial/ethnic categories? (ENTER PERCENTAGES; IF NONE, ENTER '0') (N=880)

Mean: 42 % White (not Hispanic)

Mean: 46 % Black

Mean: 6 % Hispanic (not black)

Mean: 2 % Asian/Pacific Islander

Mean: 4 % Native American/Alaskan Native

Mean: 0 % Other/Unknown

100% **TOTAL**

29. During SY 1990-91 and SY 1991-92, how much program improvement funding, if any, was your school allocated? (ENTER AMOUNT; IF NONE, ENTER '0')

$ Median: 0.00 SY 1990-91 (N=603)

$ Median: 0.00 SY 1991-92 (N=615)

30. How many full-time and part-time Chapter 1 teachers and aides (para-professionals), if any, are currently employed at your school? (ENTER NUMBERS; IF NONE, ENTER '0')

	Number of Chapter 1 Teachers	Number of Chapter 1 Aides (Para-professionals)
1. Full-time	Median: 2 (N=860)	Median: 2 (N=850)
2. Part-time	Median: 0 (N=784)	Median: 0 (N=773)
TOTAL	Median: 2 (N=775)	Median: 2 (N=760)

31. Below, please indicate which grades (1) are taught in your school and (2) are served by your Chapter 1 program. (CHECK ALL THAT APPLY FOR EACH GRADE) (N=904)

GRADES	Grades Taught in School (1)	Grades Served by Chapter 1 (2)
1. Pre-K	28	8
2. Kindergarten	70	33
3. Grade 1	73	54
4. Grade 2	74	61
5. Grade 3	75	69
6. Grade 4	72	64
7. Grade 5	70	60
8. Grade 6	52	43
9. Grade 7	33	28
10. Grade 8	33	27
11. Grade 9	14	9
12. Grade 10	11	6
13. Grade 11	11	5
14. Grade 12	10	4

YOUR COMMENTS

32. Below, please briefly discuss any concerns or recommendations you have about Chapter 1 program improvement. (N=916)

40% provided comments

33. Please provide below any comments you have about this questionnaire, or any of the questions. (N=916)

14% provided comments

THANKS FOR YOUR HELP!

HRD/LM04-3.92

Case Study Locations

Arkansas	West Memphis Public School District, Wedlock Elementary School
	Little Rock Public School District, Badgett Elementary School
Maryland	Washington County School District, Hickory Elementary School
	Baltimore City Public Schools, Lexington Terrace Elementary School
Michigan	Hartford Public School District, Red Arrow Elementary School
	Detroit Public School District, Spain Elementary School
Mississippi	Western Line School District, Glen Allan Elementary School
	Jackson City Public School District, Isable Elementary School

Comments From the Department of Education

UNITED STATES DEPARTMENT OF EDUCATION

OFFICE OF ELEMENTARY AND SECONDARY EDUCATION

THE ASSISTANT SECRETARY

Ms. Linda G. Morra
Director, Education and
Employment Issues
Human Resource Division
United States General Accounting Office
Washington, DC 20548

FEB 26 1993

Dear Ms. Morra:

The Secretary has asked that I respond to your request for comments on the GAO draft report, "CHAPTER 1 ACCOUNTABILITY: Greater Focus on Program Goals Needed" (GAO/HRD-93-69), which was transmitted to the Department of Education by your letter of February 8, 1993.

Generally, we agree with the conclusions reached in the report and believe that they would be helpful to the Chapter 1 program operation. This general agreement, however, should be tempered with a few observations arising from the study design itself.

We are in complete agreement with the conclusions that address the shortcomings of norm-referenced tests in identifying schools for program improvement and highlight the promise of multiple measures. There is no question that the use of multiple desired outcomes in identifying schools for program improvement would enhance the accuracy of the identification process. At the same time, however, it is necessary to recognize some limitations in the use of multiple measures. The first is the issue of data conflict; i.e., when one data source suggests program success and another data source suggests program failure. Department of Education monitors have observed norm-referenced test data may conflict with desired outcome data in local educational agencies that use multiple measures. This phenomenon may occur with any set of multiple measures. Although this is not an insolvable problem, it does require some sophistication in affecting a resolution.

Second, the use of multiple measures will increase the accuracy of the identification process only if the measures are valid and reliable. This should be noted in the report to emphasize the importance that measures used must be of high quality. Third, while we agree with your conclusions, as noted earlier, the study did not empirically verify the proposition that multiple measures are more precise than single measures in identifying schools for program improvement.

400 MARYLAND AVE., S.W. WASHINGTON, D.C. 20202-6100

Page 2 - Ms. Linda G. Morra

We are also enclosing some comments on portions of the draft report discussing the requirements for setting desired outcomes and aggregate achievement. We recommend that the final report reflect these changes.

Thank you for the opportunity to comment. I and members of my staff are prepared to respond, if you or your representatives have any questions.

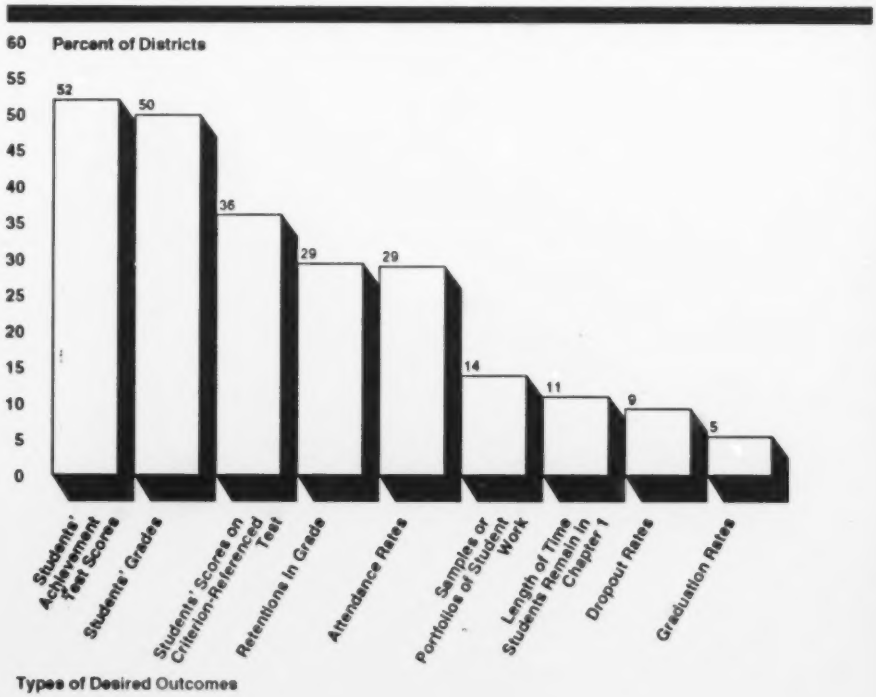
Sincerely,

Mary Jean LeTendre
Acting Assistant Secretary

Additional Desired Outcomes Used by School Districts Involved in the Joint Phase

Among school districts we surveyed that were involved in the joint phase during school year 1991-92, about 59 percent reported using other desired outcomes to identify schools for program improvement, in addition to average NCE gains for grades 2 to 12.[1] The most commonly used type of desired outcome concerned student performance on achievement tests—using some measure other than the average annual gains of all Chapter 1 students. School districts in Illinois, for example, were required by the state to identify schools for program improvement if (1) less than 75 percent of Chapter 1 students made gains on achievement tests, or (2) less than two-thirds of the grades served by Chapter 1 made average gains on achievement tests. The second most widely used desired outcome concerned students' grades, and the third concerned student performance on criterion-referenced tests. (See fig. IX.1.)

Figure IX.1: Types of Desired Outcomes, Other Than Average NCE Gains, Used by Districts Involved in the Joint Phase (N=239)



[1]In addition, in school year 1990-91, for the purpose of identifying schools for program improvement, 20 states required the use of desired outcomes, other than NCE gains, for students in grades 2 to 12.

Local Conditions Specified in the Statute

The local conditions section of the Hawkins-Stafford Amendments of 1988 reads as follows:

> The local educational agency and the State educational agency, in performing their responsibilities under this section, shall take into consideration—
> (1) the mobility of the student population,
> (2) the extent of educational deprivation among program participants which may negatively affect improvement efforts,
> (3) the difficulties involved in dealing with older children in secondary school programs funded under this chapter,
> (4) whether indicators other than improved achievement demonstrate the positive effects on participating children of the activities funded under this chapter, and
> (5) whether a change in the review cycle ... or in the measurement instrument used or other measure-related phenomena has rendered results invalid or unreliable for that particular year.[1]

[1]Public Law 100-297 section 1021(e).

School, District, and State Officials' Views on the Factors That Hindered Success in the Local Phase

The questionnaires we sent to school, district, and state officials asked respondents for their opinions on the extent to which various factors hindered schools from succeeding during the local phase of program improvement.

Principals and district coordinators had generally similar views, ranking the same five factors at the top of the list. The factors they saw as having the greatest negative impact on improvement efforts were (1) degree of parental involvement, (2) educational deprivation among children served, (3) poverty among children served, (4) mobility among children served, and (5) time allowed by law to show improvement.

The list of possible responses on the state coordinator questionnaire was somewhat different. Among factors that appeared on all three questionnaires, though, state coordinators sometimes had very different views from principals and district coordinators. For example, state coordinators were much more likely to say that schools were hindered in the local phase to a "very great" or "great" extent by (1) the coordination between Chapter 1 and the regular program, (2) the attitudes of school staff toward program improvement, and (3) the strategies used to improve programs in the local phase. (See table XI.1.)

Table XI.1: Principals', District Coordinators', and State Coordinators' Opinions on Factors That Hindered School Success in the Local Phase

Factors that may have hindered schools' ability to succeed in the local phase	Percentage saying factor hindered schools' success to a "very great" or "great" extent		
	Principals	District coordinators	State coordinators
Degree of parental involvement	50	40	[a]
Educational deprivation among children served	46	44	38
Poverty among children served	38	31	23
Mobility among children served	30	30	[a]
Time allowed by law to show improvement	29	30	18
Availability of funds for program improvement	22	15	0
Having children in Chapter 1 who would have been better served in special education	15	18	20
Coordination between Chapter 1 and the regular program	10	11	44
Location of Chapter 1 instruction (such as pull-out, in-class, stand-alone, or other)	9	7	[a]
Attitudes of school staff toward program improvement	9	14	36
Quality of regular classroom instruction	8	16	29
Availability of technical assistance from SEA	7	5	4
Quality of Chapter 1 teachers	7	10	[a]
Strategies used to improve programs in local phase	6	9	33
Quality of Chapter 1 aides (para-professionals)	6	8	[a]
Attitudes of SEA staff toward program improvement	3	3	[a]
Attitudes of LEA staff toward program improvement	[b]	[b]	31
Quality of Chapter 1 instructors	[b]	[b]	24
Delivery models used for Chapter 1 instruction	[b]	[b]	24
Availability of technical assistance from TAC/R-TAC	[b]	[b]	2

(Table notes on next page)

Note: SEA = state education agency; LEA = local education agency; TAC = technical assistance center; R-TAC = rural technical assistance center.

[a]Item not included in the questionnaire for state coordinators.

[b]Item not included in the questionnaires for principals and district coordinators.

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